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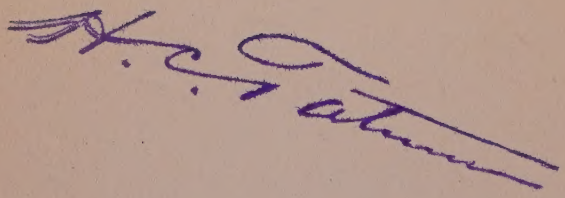

H. C. Tatum.

Studies in Applied Tactics

BY

LIEUTENANT-GENERAL GEORG VON ALTEN.

Authorized Translation
(with substitution of American Army Organization)

BY

MAJOR C. H. BARTH,
12th U. S. Infantry.

PART I.

RECONNAISSANCE.

PART II.

CAVALRY OUTPOSTS.
MARCH AND COMBINED OUTPOSTS.

1908.
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TRANSLATOR'S PREFACE.

Since the applicatory system of instruction in the art of war has come into such favor, and justly so, a great many books have appeared based on this system. All those producing these books are disciples of General von Verdy, and have imitated him more or less successfully. The more nearly they have succeeded, the better their results have been. It is believed that the following pages devoted to research in this field will be found both valuable and interesting. The first part will appeal particularly to cavalry officers, as it deals with cavalry reconnaissance, especially that of smaller bodies. The second part will appeal to all officers studying troop-leading of the division and army corps.

The author kindly consented to his work being translated and changed in so far as found desirable in adapting it to our own Army organization. Therefore it must be remembered, for example, that a troop of cavalry is assumed to contain 100 men, divided into 4 platoons. These changes were made to facilitate a study of the problems.

Whenever practicable, our own Field Service Regulations are quoted and referred to by foot-note. This happens quite frequently, the similarity between the German and our own doubtless being due to the former having been freely consulted in formulating the latter.

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PREFACE.

To "know how" is the principal thing in every art, and in the art of war nothing fosters this so much as individual effort and determination to succeed. The following pages were written with this in view; it being intended to offer material in as varied a form as my imagination could produce. The discussion of the problems and the narrative of events are intended to smooth the reader's way in arriving at his own decisions. But I protest against my work being considered as model solutions. Good will come only from testing its correctness, not from accepting it on faith. I would also caution, against any attempt to deduce general rules from any single solution as they might fail in the first attempt to apply them. It is very seldom that a situation in war is repeated, and it would be impossible to rely on memory to assist in arriving at a decision. The leader must not allow any vain endeavor to recall something he has learned interfere with his exercising his common sense and creative energy. He even must be cautious about making use of his own past experience. Still less can the form of my studies serve as a model. The form is of so little value compared with the substance that it is not worth while to imitate.

The German Service Regulations form the basis for the work, although considerable discretion was exercised in their application. Exceptions prove the rule, and an individual case all the more justifies a deviation from a rule because the Regulations are the work of man. Before the tribunal of history reference to a regulation will not be accepted as an excuse for a neglect; and in all ages new and startling thoughts and measures have triumphed over routine.

To carry out the idea of the following studies, the problems in the text are separated from my solutions which follow, so that the reader is able to write down his own unbiased solution before taking cognizance of mine.

At first considerable time should be taken to think about each problem. Mature reflection, covering every detail, is the best preparation for quick decision. Work should continue on a problem until the reader is personally satisfied with the solution.

By using a continuation of the same "situation," higher and lower commanders in turn have a chance to be heard. It can only be an advantage for a junior officer occasionally to solve problems carrying him beyond his actual rank and command; and a senior may improve his capacity as instructor by occupying himself with problems that on service would devolve on juniors.

The first part of this book deals with cavalry reconnaissance, and especially that of smaller bodies. This branch of the military service is discussed first because it usually initiates operations of war, and because the principles involved should be familiar to the commanders of all branches of the service if they wish to correctly employ and energetically support the advance cavalry. Even the junior officers of infantry and artillery employed in the service of security and information require a knowledge of the powers and limitations of the sister arm in advance of the army if the cogs of the machine are to work smoothly.

The second part of the book deals with cavalry outposts, and the service of security of the different arms combined. In this way an insight will be obtained into the command of larger bodies of troops, which will be discussed later if I may hope for a favorable hearing.

GEORG VON ALTEN.

Berlin, October, 1902.

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Studies in Applied Tactics.

PART I.

RECONNAISSANCE.

A blue army in friendly territory is moving from the Vistula (Weichsel)* on the front Gilgenburg–Saalfeld, against a hostile red army coming from the east.† The two cavalry divisions (1st and 2d) of the blue army are united on the right flank of the army. The left wing of this army consists of the First Army Corps,‡ to which the First Cavalry from the First Cavalry Division has been attached. The fortress of Königsberg has its full armament and is garrisoned by (blue) organized militia.

May 4, 1904, the 1st Division,§ 1st Army Corps, is in and near Saalfeld, with its advance troops at Barten. The 2d Divi-

*Much time will be saved the reader, subsequently, if he will underscore in red the names of places the first time he locates them on the map. —*Translator.*

It is recommended that the following "situation" be carefully read, and re-read if necessary, with maps before you, so that a clear idea can be obtained of all details of the situation.—*Translator.*

†See accompanying maps. In consulting these—particularly the one drawn to a scale of 1: 300,000—it is urgently recommended that a reading-glass be used.—*Translator.*

‡For organization of an army corps, a division, and cavalry division, see par. 4, F. S. R. ("F. S. R." refers to our own Field Service Regulations.) —*Translator.*

§The term "division" means division of infantry; whenever a cavalry division is meant, it is so stated in the text.

sion, 1st Army Corps, is in rear of the 1st and extends as far as Gerswalde. The 1st Cavalry (1,200 strong), which detrained at Marienburg on May 3d, is in and near Maldeuten.

The orders issued the evening of May 4th from headquarters 1st Army Corps direct, that on the following day the corps continue its march via Maldeuten towards Mohrungen, while the 1st Cavalry reconnoiters to the front and the left flank. The van guard of the 1st Division leaves Barten at 6 a. m. The neighboring 2d Army Corps marches via Liebemühl with the intention of having its advance troops reach Locken on May 5th.

By 11 p. m., May 4th, Colonel A——, commanding the 1st Cavalry, has the following information: Traffic has been suspended on the railways east of the line Liebemühl–Saalfeld–Elbing, the rolling-stock having been withdrawn. The railway between Maldeuten, Pr.* Holland, and Mühlhausen is guarded by (blue) organized militia. The railway telegraph line as far as Horn railway station,† south of Narien-see (lake), is still in working order. Nothing has been seen or heard of the enemy at this station. But the operator at Ziegenberg reported at 9 p. m. that he would discontinue, after having failed for some time to get any reply from Brückendorf railway station.‡

A telegram was received from Liebstadt that no communication had been had with Guttstadt since 5 p. m., nor with Wormditt since 8 p. m.

Colonel A—— had sent out two patrols of 1 officer, 1 noncommissioned officer, and 12 troopers each. Lieutenant B——, commanding one of these patrols, had wired from Liebstadt that the enemy had not been seen at Wormditt as late as 6 p. m.; that until the same hour the enemy had not been seen on the

*Abbreviation for "Preussische" (Prussian).—*Translator.*

†Marked "H. St.," due north of Horn, on map. Consult the 1:100,000 map to find small towns.—*Translator.*

‡Marked "H. St.," near Brückendorf, on map.—*Translator.*

Liebstadt-Guttstadt highway as far east as Wolfsdorf; and that the patrol would remain at Liebstadt over night. Lieutenant C——, commanding the other patrol, had wired from Horn railway station, where he expected to spend the night, that at 7 p. m. the enemy had not yet appeared at Kallisten or Brückendorf.

As early as the afternoon of May 3d, Lieutenant D——, with 10 troopers on selected horses, had been sent from Marienburg with orders from the commanding general of the 1st Corps to reconnoiter in the general direction of Heilsberg and Bartenstein.

Lieutenant D—— spent the night of May 3d–4th with the organized militia at Pr. Holland, and reported at 8 a. m. May 4th, from Wormditt, that so far he had seen nothing of the enemy; that he had learned on telegraphic inquiry that nothing had been seen of the enemy at Landsberg, Mehlsack, or Guttstadt, but that since 7 a. m. telegraphic communication had been interrupted with Landsberg and Heilsberg. Just before 11 p. m. a telegram was received from Zinten, indicating that Lieutenant D—— had encountered hostile patrols at Raunau, Neuendorf, and Groszendorf, and that apparently Heilsberg, Landsburg, and Bartenstein were occupied by the enemy.

The weather is cool, and some rain has fallen the last few days. The ground is favorable for cavalry, and horsemen can go almost anywhere on the roads.

Required:*

1. WHAT IS COLONEL A——'S ESTIMATE OF THE SITUATION?

2. WHAT ARRANGEMENTS DOES HE MAKE AFTER 11 P. M., MAY 4TH?

*Before reading the author's solution to these and all succeeding problems, it is recommended that the reader work out his own solution in full.—*Translator.*

The following is offered in answer to "1":

From the messages announcing interruption of telegraphic communication and from Lieutenant D——'s last message, it is apparent that the enemy is approaching. Lieutenant D——'s message from Wormditt, stating that the enemy had not been seen at Landsberg, Mehlsack, or Guttstadt, cannot mislead anyone if it is remembered that this was sent at 8 a. m.

A collision of the main opposing forces is not to be expected on May 5th; the intervening distance is too great. This day, therefore, is still at the disposal of the cavalry to secure further information of the enemy. However, such information must not arrive too late, if to be of service to the army during its march on May 6th.

Narien-see blocks the direct advance towards the east and against the enemy. It would be precarious to divide the 1st Cavalry so as to have it advance both north and south of the lake (Narien-see), and it is unnecessary to do so, because the divisional cavalry* of the 1st Division, reinforced if necessary by that of the 2d Division, probably will advance to the south of the lake. Besides, the protection of the left flank and the appearance of the enemy at Wormditt and Heilsberg demand increased vigilance towards the north. Therefore it is advisable to have the entire regiment march via Mohrungen and the north end of the lake. It does not yet appear what course to follow later.

The following is offered in answer to "2":

The arrangements called for by the development of the situation will be noted in the following paragraphs (from "*a*" to "*g*").

(*a*) Orders from Headquarters 1st Cavalry:

*Cavalry attached to a division of infantry, and therefore different from that of cavalry divisions.—*Translator*

Headquarters 1st Cavalry, Maldeuten, Prussia,
4 May 04, 11.20 p. m.

Field Orders
No.—— 1. The enemy apparently has continued his march in a westerly direction. The telegraph line to LANDSBERG and HEILSBERG has been cut since this morning, and to WORMDITT, GUTTSTADT, and BRUCKENDORF since this evening. HEILSBERG and LANDSBERG apparently were occupied by the enemy to-day. The 1st Army Corps will march via MALDEUTEN towards MOHRUNGEN the 5th inst., and the 2d Army Corps via LIEBEMUHL towards LOCKEN.

2. This regiment will be formed by 5 a. m. the 5th inst. in column of route on the MALDEUTEN–GR.* WILMSDORF highway, with head of column at the latter place. The 1st Squadron,† which is to protect the formation, will be in the lead.

3. Troop A will be sent in advance of the regiment and will be under my immediate orders.

4. The baggage train,‡ with the advance guard pontoon train, will be formed by 6 a. m. the 5th inst. on the SEEGERTSWALDE–GR. WILMSDORF highway, with head of column at the Overland Canal.§

5. Squadron commanders will report to the right commander for further instructions at 5 a. m. the 5th inst. at GR. WILMSDORF.

By order of Colonel A——:

C—— B——,
Capt. and Adjt. 1st Cav.,
Adjutant.

Dictated to the officers‖ detailed to receive orders.

(*b*) Before the above order is sent out, the commander of Troop A is ordered to report to the colonel, who acquaints him with this order, together with the necessary details concerning the situation, and adds the following instructions:

"You will reconnoiter in advance of the regiment towards Wormditt–Guttstadt–Münsterberg, leaving Maldeuten at 4 a. m. to-morrow. Lieutenant B——, of your squadron, is at Liebstadt to-night, with 12 troopers, and Lieutenant C——,

*Abbreviation for "Grosz" (Great).—*Translator.*

†On the supposition that it furnished the outposts during the preceding night.

‡The "regimental train" is styled "baggage train" in the proposed revision of F. S. R.—*Translator.*

§"Oberländische Kanal" on the 1:300,000 map.—*Translator.*

‖The squadron adjutants in this case.—*Translator.*

of the 2d Squadron, is at Horn railway station; both can be reached by wire, so you would best at once communicate with them. Lieutenant B—— will be under your orders. Lieutenant C—— will be ordered to promptly reconnoiter to-morrow morning via Brückendorf towards Gr. Buchwalde–Jonkendorf and later try to join the regiment via Kallisten. At first I shall take the regiment in column of route as far as Gr. Hermenau; further dispositions will largely depend on your messages from the front. I shall hold the railway station at Mohrungen until relieved by the 1st Division.

"I shall request the corps commander to use his divisional cavalry for reconnaissance south of the Narien-see towards the Alle River."

(*c*) After the order had been dictated to the squadron adjutants, the following telegram was sent to corps headquarters:

The 1st Cavalry will leave Gr. Wilmsdorf at 5 a. m. the 5th inst. I intend provisionally to take it in column of route as far as Gr. Hermenau, and would request that the divisional cavalry of the 1st Division, and, if possible, also that of the 2d Division, be sent forward early to reconnoiter via the south end of Narien-see towards Münsterberg–Jonkendorf. I shall occupy the telegraph stations of Mohrungen and Gr. Hermenau. I would request that any information for me yet to arrive be sent to Maldeuten till 4-30 a. m., to Mohrungen till 7 a. m., and after that to Gr. Hermenau.

(*d*) The following telegram is sent to headquarters 1st Division:

Lieutenant C——, 1st Cavalry, who is at Horn to-night, is ordered to advance early to-morrow morning via Brückendorf towards Gr. Buchwalde–Jonkendorf, and to send any important information to the cavalry of the 1st Division, whose advance via the south end of Narien-see towards Münsterberg–Jonkendorf I have recommended to corps headquarters.

(*e*) Lieutenant C——, at Horn, receives the following telegraphic orders:

1st Army Corps will march towards Mohrungen the 5th inst., and the 2d Army Corps via Liebemühl towards Locken. At 5 a. m. the 5th instant this regiment will advance from Gr. Wilmsdorf via Mohrungen–Gr. Hermenau towards Wormditt–Guttstadt–Münsterberg. Troop A will leave Maldeuten at 4 a. m. to reconnoiter in advance of the regiment. You will start early in the morning on reconnaissance via Brückendorf

towards Gr Buchwalde–Jonkendorf; later joining your regiment via Kallisten. Send me information, if possible by wire, until 7 a. m. to Mohrungen, after that to Gr. Hermenau. Also send any important information to the cavalry of the 1st Division, which will advance via Mohrungen and the south end of Narien-see towards the Alle.

(*f*) Lieutenant B——, at Liebstadt, is wired as follows:

You are placed under the orders of Captain E——, commanding Troop A, 1st Cavalry, from whom you will receive further orders.

(*g*) A regimental staff officer of the 1st Cavalry, who has been busy gathering telegraphic information since arriving at Maldeuten, continues his work during the night.

An estimate of the situation often is required in problems on applied tactics because it helps to a clear conception of the situation. Only the important and determining factors should be noted, omitting all well-known facts. It is not advisable to give reasons for details in the conclusion adopted, because judicious arrangements as a rule justify themselves.

"Arrangements" include more than the formal orders issued by a commander. They include everything undertaken to insure unity of action among the co-ordinate parts and the attainment of the commander's aim. It is recommended that officers desiring to advance in professional knowledge repeatedly write out messages, instructions, etc., so their form may present no difficulties when circumstances demand quick decision and action.

The situation of the 1st Cavalry and the arrangements to be made by its colonel in some respects are of great importance, and therefore a more detailed discussion of them will follow what has gone before.

Colonel A—— (as always should be done by subordinates) doubtless has consulted the General Staff map (scale 1:100,000) as well as the General map (scale 1:300,000), to get a comprehensive idea of the situation as regards the whole army. He could easily see that there was still a considerable distance between the opposing armies. If on the evening of May 4th the leading hostile patrols have but reached the line Wormditt–

Brückendorf, it may be assumed that the heads of the main columns are at least a day's march east of the Alle. Lieutenant D——'s message, stating that Landsberg and Heilsberg apparently are occupied by the enemy on the 4th, strengthens this assumption. As it is a question of large bodies on both sides, whose rate of march is lessened by depth of column and scarcity of good roads, it is reasonable to conclude that there will be no serious engagement on the 5th. The probability of encountering hostile cavalry necessitates holding our own well in hand, and it is all the more important to go past the north end of Narien-see as the 1st Cavalry is called upon to protect the left flank of the 1st Army Corps as well as to screen its advance. The latter duty is self-evident and needed no special mention in orders from corps headquarters. If army headquarters had not sent the railway rolling-stock back so completely and so far (a measure that now proves very detrimental), detachments of infantry could be sent forward on May 4th to Liebstadt, Gr. Hermenau, Mohrungen, and Horn, and thus materially simplify the duties of the cavalry.

The question arises as to whether 5 a. m., the selected hour of departure, answers the purpose, or seems too late.

The sun rises at about 4 a. m.* It will take over half an hour for the troops to assemble from their cantonments, and we must allow at least an hour for feeding and saddling, if this is not to be done hurriedly; therefore the men must be astir by 3 a. m., and perform some of their duties in the dark, notwithstanding the favorable season of the year and the not very early time set for departure. Further news of the enemy, the head of whose columns did not arrive on the Passarge River until evening, is not to be expected before Colonel A——'s arrival at Gr. Hermenau—*i. e.*, between 7 and 8 a. m.; and not until then can it be decided on what road to continue the advance. Therefore it would be of little use to arrive at this cross-roads

*Central European time.

any earlier. Although so far the exertions required of the troops may not have been excessive, still, a consideration of the coming day demands every permissible economy of strength; and a materially earlier departure, instead of permitting a quiet issue of orders, would have necessitated hurry and marching by night, which unduly consume strength. Unnecessary curtailment of rest indicates nervousness on the part of the leader and shakes the confidence of the troops in his capabilities.

Colonel A—— simply orders the assembly of his regiment and defers issuing the order to march until later. Although on the evening of the 4th he had already decided in what direction to march, his delay in announcing this is natural, for experience shows that even well-founded decisions often need alteration at the last moment, and that therefore it is wise to never order more than what is absolutely necessary. Assembling on the road instead of in the adjoining fields saves time and strength and can be ordered unhesitatingly, as there is no danger of surprise by the enemy. Paragraph 3 of the regimental order, and the instructions to the commanding officer of Troop A based upon it, require special notice.

While the plan here adopted of having a troop perform all the reconnoitering in the main direction of advance is not contrary to the German Field Service Regulations, still, it is not generally followed in the Army. More frequently the different reconnoitering-patrols are sent out directly by the higher commanders, and receive their instructions from the latter, while troops sent after them form their support and are charged with keeping up communication. Obviously it is very difficult for a higher commander to arrange for the movement and relief of distant patrols day by day, aside from the fact that this method does not take full advantage of the discretion and experience of troop commanders. Further events in our problem may help to clear up this subject.

Concerning the remainder of the regimental order there need only be said that it contains the necessary information of the enemy and of our supporting troops in concise terms, so that all concerned may take notice. The baggage train is assembled somewhat later than the troops, thus enabling the latter to use their heavy baggage until the last moment. Besides, it is very detrimental for the train to load and depart in the dark. But 6 a. m. probably is the latest time permissible for its assembly if it is to march ahead of the train of the 1st Division. In case of danger the train would have to join that of the 1st Division, in which event it would be unable to rejoin its regiment on the 5th. Such separation can be endured for a short time, but if prolonged, it not only is inconvenient, but also dangerous. Were the baggage train not urgently needed, it surely would soon have disappeared as an unnecessary impediment. Just remember that the baggage train includes rations and forage-wagons, and that the troop wagons, besides officers' baggage and reserve clothing for men, carry armorers' outfits, horse medicines, and field forges.*

In staff rides and maneuvers, where heavy baggage appears only on paper, we often see in orders the words, "The baggage train will go into park here or there." As soon as the train actually appears, it becomes a different question to dispose of it judiciously.

As a rule, the light bridge train, the same as medicine-carts, goes with the light train, which is never separated from the troops and therefore needs no special mention in orders. But it has heavy, cumbrous wagons that cannot keep up with troops, especially on country roads. Therefore it is preferably left with the baggage train as soon as it appears probable that the bridge train will not be needed in the first line.

*Company and troop wagons may carry 950 lbs. tentage, 250 lbs. officers' baggage, 350 lbs. cooking utensils, and two days' rations and grain. (Par. 396, F. S. R.)

Colonel A—— is fortunate to have the telegraph available for communication with the different headquarters as well as with his own patrols. This is an advantage due to being in friendly territory, and is utilized by Colonel A—— in making his arrangements. It may seem strange that his orders and messages, intended for transmission by wire, should not be abbreviated to a so-called telegraphic style. But experience has taught me that this style greatly favors mistakes. The omission of a single word, even if it seems superfluous, may lead to no end of confusion. Short, clear sentences are preferable.

It is mentioned, under "*g*," that a regimental staff officer has been busy obtaining telegraphic information since arriving at Maldeuten. Naturally he would have several cyclists as orderlies. Every means must be utilized that will afford additional information of the enemy. In spite of this, war often is very disappointing on account of the scarcity, unreliability, and slowness of information. From Maldeuten an effort can be made to learn from a larger telegraphic station—such as Elbing—how far on the Allenstein–Korschen* line telegraphic communication still exists; and inquiry of the last station on the line may throw a flood of light on the situation. Of course such information must be cautiously received, because the enemy in this way may try to spread false reports; and our telegrams must never prove traitorous. Therefore you must studiously avoid any expressions from which the enemy might draw conclusions as to our situation or intentions, such, for instance, as "Answer by wire to headquarters 1st Cavalry at Maldeuten." One way of accomplishing the object is to collect the answers at a remote station with which we are in assured telegraphic communication. It must be separately decided in each case whether the subordinate (in our case, Colonel A——) may

*See General map. Korschen is northeast of Allenstein, beyond the limits of the map.—*Translator.*

conduct such telegraphic inquiry without reference to higher authority.

The date of the regimental order is "4 May 04, 11-20 p. m." Very likely May 5th has arrived before the squadron adjutants, receiving the order, are dismissed. Therefore the words "to-day" and "to-morrow" in the body of the order might lead to misunderstanding—this is avoided by inserting the date. Not until late at night are the orders received by those for whom they are intended. These officers, awakened from a heavy sleep of exhaustion, by poor light must consult maps that have become more or less unintelligible through use in wind and rain, and must hastily make their dispositions. This forms a fruitful source for the most unlikely misunderstandings.

It is long past midnight at regimental headquarters before all arrangements are completed for the following day, which surely will tax officers and men in the extreme. Only a few hours remain in which to rest and gain new strength—a reminder that some of the time before arrival of orders from corps headquarters should have been thus utilized. A soldier should be able to store up sleep, as it were, considering that he never knows what may be required of him at any time. As soon as information or orders arrive, the guard at regimental headquarters must awaken the officer on duty. The latter must decide whether or not the regimental commander should be awakened.

Leaving regimental headquarters, let us consider the important task that devolves on Captain E——, commanding Troop A. This troop is quartered at Maldeuten, where it arrives on the afternoon of May 4th, after a march of 26 miles. It is well quartered and had plenty to eat for horses and men. Its baggage train arrived at 8 p. m.

Captain E—— makes a memorandum of the verbal instructions received from Colonel A——, and reads them aloud before

leaving the latter's headquarters, finding it unnecessary to ask any questions about them.

WHAT ARRANGEMENTS DOES CAPTAIN E—— MAKE AFTER RECEIVING HIS INSTRUCTIONS AND AFTER HAVING LEARNED BY WIRE FROM THE TWO OFFICERS IN LIEBSTADT AND HORN THAT THEY HAD NOTHING NEW TO REPORT?

After leaving his regimental commander, Captain E—— presumably verbally told his squadron commander what orders he had received, directed his first sergeant and squad-leaders to report to him for orders, and went to the railway station to communicate with the officers at Liebstadt and Horn. He would send the following telegrams from the office at the railway station.

(*a*) To Lieutenant C——, at Horn:

Troop A, 1st Cavalry, *en route* to Gr. Hermenau, will arrive at Mohrungen shortly after 5 a. m., and looks for reports at both places.

(*b*) To Lieutenant B——, at Liebstadt:

You will continue your reconnaissance via Wormditt and Guttstadt. By 6 a. m., at Gr. Hermenau, I shall expect a report of your reconnaissance to Wormditt and Scharnick. Any approach of the enemy must be at once wired here and after 4 a. m. also to Mohrungen.

If Captain E—— has not a list of telegraph stations, and cannot obtain one at the station, he should enter a list of telegraph lines and stations on his General map, as obtained upon inquiry from the station agent, and arrange with the latter to forward telegrams. The captain then returns to Maldeuten, and it will be fully an hour after midnight before he will have issued his orders. These will be as follows:

1. Lieutenant F—— will report at my quarters at 2 a. m., with 1 sergeant and 14 men of his platoon, ready for patrol duty. [This order is sent to the lieutenant at once.]
2. Troop A will be assembled at 4 a. m. at the southern exit of Maldeuten, ready to march.
3. The troop escort wagons will be ready at the same place at 5-45 a. m., and will join the baggage train of the squadron.

The first sergeant copies these orders. At 2 a. m., when Lieutenant F—— reports, the captain explains the situation

to him, including the instructions sent Lieutenants B—— and C——, and directs him as follows:

"You will ride via Mohrungen–Gr. Hermenau, at first to reconnoiter towards Kallisten and then along the Kallisten–Guttstadt road. I shall expect a report of your reconnaissance as far as the Passarge by 6 a. m., at Herzogswalde, to which place I shall send a connecting-patrol."

The captain had previously written these instructions in his note-book.

Chance has favored Captain E—— with an important and enviable task. His efficiency is increased not only by the elation of a cavalryman who feels that he now may show of what he himself is capable and what his troopers can do, but also by an appreciation of the difficulties and responsibilities devolving upon him. An experienced troop commander is ready to meet all manner of obstacles and appreciates the bearing his work has on the decisions of higher authority. Therefore, with careful deliberation he tries to provide for every contingency. It is important that he, as well as his regimental commander, should obtain information at Gr. Hermenau from all points under consideration. He is justified in ordering the patrol at Liebstadt to reconnoiter via Wormditt as well as Guttstadt, because telegraphic communication still seems possible for some distance along the railway towards Wormditt. The captain does not think it advisable to send Lieutenant B—— more detailed instructions, for example, about dividing his patrol, holding the telegraph station at Liebstadt, etc. How easily may the conditions there change before morning, so that such instructions could not be carried out and the officer would be placed in an embarrassing position. Therefore the lieutenant is told what is expected of him and is allowed to do it in his own way.

The captain sends Lieutenant F—— into the gap between Lieutenants B—— and C——, the region south of the Lieb-

stadt–Guttstadt road. It is to be hoped that information will be available from Lieutenant C——'s district before the troop reaches Gr. Hermenau.

It is true that the net broadly and promptly spread by Captain E—— to obtain information has wide meshes, but it affords some assurance that the enemy will not be able to slip through unobserved.

In Troop A the issue of orders has taken until towards early dawn. The first sergeant and squad-leaders hardly will be able to obtain another half-hour's rest in the straw if everything among horses and men is to be in ship-shape order for the long day's work by 4 a. m., the time for departure. This is an earnest reminder for higher authorities to issue their orders early, as these form the basis for others.

By 4 a. m. May 5th word is received from Elbing that telegraphic communication has been interrupted with Königsberg and Pr. Eylau since a. m. of May 4th, and with Landsberg since noon that day. The latter office was dismantled on the approach of hostile troopers. The telegraph line was destroyed between Mehlsack and Wormditt on the evening of May 4th, but at Mehlsack itself the enemy had not appeared up to 2 a. m. May 5th. At 2 a. m. Lieutenant B—— reported that he was about to leave for Guttstadt with 7 troopers, sending Sergeant H—— and 5 troopers to Wormditt.

These reports do not cause Captain E—— to change any of his arrangements. At 4 a. m. he marched from Maldeuten and sent Corporal M—— with 3 troopers ahead to Herzogswalde as a connecting-patrol for Lieutenant F——. At 5-20 a. m. the troop arrived at the Mohrungen station, where the following telegrams were found:

1. By wire from Horn railway station at 5 a. m. May 5th.

Hillside just west of BRUCKENDORF,
5 May 04, 4-10 a. m.

Found railway station near Brückendorf occupied by enemy, who fired on us.

C——,
Lieutenant.

2.

MALDEUTEN,
5 May 04, 4 a. m.

Major D——, with 3 troops 3d Cavalry, leaves Drenken at 5 a. m., reconnoitering via Pfeiling towards Münsterberg–Jonkendorf.

By order of Colonel A——: B——,
Adjutant.

Captain A—— leaves a corporal and 1 private at the railway station with orders to see that all messages received for the troop are repeated to Gr. Hermenau, and to take charge of any for regimental headquarters. None of these must be allowed to fall into the enemy's hands. Upon arrival of regimental headquarters the detail is to rejoin its troop. The telegraph office in the town of Mohrungen had received no dispatches of any importance. It and the postoffice were notified to hide all matter that could be of any value to the enemy, and to remain in constant communication with the railway station.

The troop commander sent a short dispatch back to regimental headquarters at Gr. Bestendorf and then continued the march. At 6 a. m. the troop arrived at Gr. Hermenau, where the following dispatches were found.

1. Message from Sergeant H——, who was sent to Wormditt by Lieutenant B——:

WORMDITT,
5 May 04, 4 a. m.

Yesterday evening 20 hostile troopers cut the telegraph line, destroyed the instruments, and blew up rails and switches at the station. They remained here over night and left at 1 a. m., going towards Alken.

(This message was wired from Sportehnen to Gr. Hermenau.)

2. Lieutenant B—— reports at 5.30 a. m., from Pittehnen (forwarded by wire from Liebstadt):

Shortly after 4 a. m. I encountered a platoon of hostile cavalry at Scharnick and retired to this point. Am still holding the crossing. The Passarge here can be crossed only on the bridge.

3. Lieutenant F—— reports from the edge of the woods north of Sanglau at 5 a. m.:

Twelve hostile troopers are riding from Lettau towards Herzogswalde. I shall continue my reconnaissance via Sanglau towards Kallisten. I have sent a lance corporal and 2 men to Sackstein to report direct to the troop.

The trooper carrying this message passed between Ponarien and Royer Forst (Forest), but did not see anything more of the enemy. Upon inquiry, he stated that the highway at Waltersdorf was entirely deserted at about 5 a. m.

No word had been received from the patrol sent to Herzogswalde.

TO WHAT DECISION DOES CAPTAIN E—— COME, AND WHAT ARRANGEMENTS DOES HE MAKE, AFTER 6 A. M.?

Hostile troopers are reconnoitering on all roads leading from the east. But no insight has yet been obtained behind these advanced parties.

The captain may have hoped for more definite information from his patrols. He probably hoped for information at Gr. Hermenau that would have simplified his task.

But on again comparing time and distance he realizes that by 6 a. m. he hardly could have expected more definite information unless large bodies of hostile troops crossed the Passarge early in the morning. So far there is no word about Kallisten from Lieutenant F——, nor about Sackstein, although Lieutenant F—— had sent a patrol to the latter point. Therefore the question arises whether Captain E—— should await the arrival of further information that might serve as a basis for further arrangements. It takes time to wait, and, as the patrols everywhere have encountered hostile ones, which hamper their freedom of action, the same uncertainty might still obtain upon arrival of the regiment, if the troop did not take an active part in the reconnaissance.

There are good reasons for not sending further strong patrols in the three main directions: Kallisten, Guttstadt, and Wormditt. At neither point would a decisive superiority be

obtained, the captain's personal supervision and power to assist would become *nil*, and the scattered troop hardly could be assembled again during the day. In case the regiment encountered the enemy, the troop would have lost its fighting power. Therefore it seems best that the troop continue on its way as a closed body, so that at one point, at least, it may be able to pierce the hostile screen and obtain some light. What direction shall the captain choose?

Captain E—— need not bother about the hostile patrol that advanced early in the morning from Wormditt towards Alken. A part of Lieutenant B——'s patrol is at Wormditt, and it is to be hoped that this will be able to make the necessary dispositions to watch the roads converging on that point. But, as this party might be driven off by other advancing hostile troops, it is advisable to send out an intermediate patrol to Liebstadt, where this in addition should take charge of the important telegraph office. Lieutenant F—— is advancing via Kallisten. The 12 hostile troopers that passed him are an annoyance, but at the latest they will be driven back by the head of the regiment, and must not influence Captain E——'s decision. It is to be hoped that, if Lieutenant F——'s report on Kallisten does not reach the troop in time, it at least will thus reach the regiment. And, besides, Major D——, 3d Cavalry,* will reconnoiter via Kallisten.

Therefore the Liebstadt–Outtstadt road seems to offer the best opportunity for profitable reconnaissance, although no definite conclusion can be drawn from the sole fact that in that direction Lieutenant B—— met a rather strong hostile detachment. It is the central one of the three possible directions and admits of a change to either of the other two without too great a detour.

Probably many a one whom the "maneuver-habit" would have led to choose the Gr. Hermenau–Liebstadt highway as

*Of the divisional cavalry.—*Translator.*

the route for the troop's advance would never have given a thought to the country road via Herzogswalde–Reichenthal as a desirable route. How often we hear the advice, "Remain on the good roads," and "Even do not hesitate to make a detour if thereby the troops can remain on a good road." The principle is correct, but, in my opinion, as a rule, is not applicable on reconnaissance duty. Large bodies of troops will and must select the best roads; therefore on these we shall find the enemy's columns. But if your advanced patrols also keep to these roads, the enemy's will prevent all insight.

Patrols and reconnoitering troops can accomplish their object much more readily on side roads. Of course there is a limit to the use of side roads and fields when thereby the advance is too much retarded. In this case there are other reasons favoring the Herzogswalde–Reichenthal road: the troop will be able to keep the bridge at Sackstein under observation, whence no report has been received, so far; the troop can quickly turn south if necessary on account of reports received from Kallisten; it may be possible to drive off the hostile patrol coming from Lettau; and, as the route leads over high ground, an extended view is obtained of a large territory. Therefore Captain E—— orders his advance party to ride via Narien mill,* sends a small patrol of 3 troopers around the south side of Royer Forest to the Teufelsberg 185, and sends Sergeant L—— with 6 troopers to Liebstadt. The latter is ordered to occupy the railway station near the town, see that messages for the troop are sent the latter on the Herzogswalde–Reichenthal–Pittehnen road, and repeat all important messages for the troop to Gr. Hermenau. In addition he is directed to observe the roads leading to Göttchendorf, Wormditt, Klogehnen, and Pittehnen. Anything important to be wired direct to regimental headquarters at Gr. Hermenau. A connecting-post of 3 men is left at Gr. Hermenau.

*"Narien M." on 1:100,000 map.—*Translator.*

Captain E—— then dictates the following message to regimental headquarters:

GR. HERMENAU,
5 May 04, 6-20 a. m.

Twenty hostile troopers were at Wormditt last night, destroyed the railway and telegraph at that point, and left on the way towards Alken at 1 a. m. I am not pursuing them from this point. Sergeant H—— and 5 troopers are now located at Wormditt.

Lieutenant B—— encountered a platoon of hostile cavalry at Scharnick early this morning, and at 5.30 a. m. had retreated to Pittehnen.

At 5 a. m. to-day 12 hostile troopers, coming from Lettau, rode towards Herzogswalde. Their whereabouts is not known. Lieutenant F—— is reconnoitering via Kallisten towards Guttstadt. Troop A will advance via Herzogswalde–Pittehnen to reconnoiter the Liebstadt–Guttstadt road. Lieutenant F—— sent a lance corporal and 2 troopers to Sackstein. No report yet received from them.

I am leaving connecting-posts at telegraph stations in Liebstadt and Gr. Hermenau and at Herzogswalde.

E——,
Captain.

The message is wired to Mohrungen and in addition is sent to Colonel A—— by a trooper riding along the highway. The man is instructed to note when and where he meets Colonel A——, and is then to ride to Corporal M——, at Herzogswalde.

In practice rides and at Kriegs-spiel many of you may have been surprised to notice, as I have, that, when under similar circumstances a leader was asked for his decision and arrangements, his first answer would be: "I shall at once forward the message." At maneuvers, on the contrary, the message is entirely forgotten, or at least is not thought of for some time. Both practices are contrary to what is required in war. The sending of a message is seldom of more importance than a consideration of further necessary arrangements, which as a rule also must form the subject of a report. A combined report of what has been seen and what has been resolved upon furnishes the superior with a better picture than would two separate reports forwarded by two horses instead of one.

It is evident that in maneuvers as in war, where the enemy actually is in evidence, and miles are not measured only by the dividers, a message is easily overlooked. Time presses and

more thought is devoted to riding than to writing. A watchful assistant—an adjutant or a first sergeant—may remind you of it.

It is self-evident that the regimental commander should be kept constantly informed of the reconnaissance work and whereabouts of the troop. Captain E—— possibly might content himself with forwarding the messages received; simply appending his intended action.

It seems expedient to me that he should report to his colonel in an abbreviated form what has happened so far, possibly showing the source of his information. He thus would spare his superior the labor of reading unnecessary details, or mistakes that would have to be sifted, and force himself to carefully test all information received. Only in exceptional cases should the original messages be forwarded, as when time presses or when the exact words received are of importance for the recipient. To habitually forward all messages would be incompatible with the troop commander's obligation, whose duty it is to see that the situation is cleared up, and who therefore should separate the important from the unimportant—the true from the false. It would be different if the troop acted simply as a support for a number of independent patrols. In this event the original messages would have to be promptly forwarded. This would increase the demand for horses and increase the difficulties of supervision at regimental headquarters.

The time that the captain has devoted to quietly composing and writing his report (of which report he will retain a copy) he will regain in overtaking his advance party in company of a subaltern and several troopers (trumpeter, etc.), his troop following at a trot.

If in the meantime Lieutenant B—— has been driven away from Pittehnen, the time may be at hand when Captain E—— first meets the enemy. He might also encounter the hostile patrol that advanced via Lettau. Notwithstanding the rapid-

ity of movement, it is important to carefully look about in every direction, to avoid being surprised. An officer and 2 troopers are sent to the Teufelsberg, which limits the view to the south, while the captain himself rides to Knoll 136 west of the north end of Herzogswalde, carefully concealing himself and his companions from hostile observation. The view to the northeast is quite limited, the heights at Prägsden and Wuchsing limit it. The highway from Prägsden to Liebstadt is visible almost along its entire length, and nothing of importance is visible on it, neither is there on the short stretch of highway visible near Blumen. In the vicinity of Warrhof there is a small group of horsemen moving on the Alt-Bolitten–Liebstadt highway. The captain turns his field-glasses in that direction, but his horse's movements prevent his obtaining an accurate view. But he does not wish to dismount until he finds out what the situation is in Herzogswalde, whither he sends a trumpeter. Neither his advance party nor Corporal M——'s connecting patrol is visible, and, by the time he learns that the latter is at the southern edge of the village and the advance party at the exit towards Reichenthal, his troop is already approaching. While thus waiting, the captain may have indulged in some strong language, for both detachments committed an error. Fortunately, no disastrous results have followed, but it serves as a lesson and will not be repeated. Both parties have thought only of the front and forgot that the large village behind them obstructed all view of the troop. The advance party should have left a man on Knoll 136. For his own safety, Corporal M—— at least should have guarded the cross-street in the village if perchance Knoll 136 had not served his purpose better by affording a better lookout and cover.

The captain did not at once dismount, even though he could not advantageously use his field-glasses while mounted. Possibly he had the French General Staff officer in mind who, leaving his escort at the foot of a hill near Beaumont, August 29,

1870, dismounted and was captured by some Prussian Garde-Uhlans, who ascended the hill from the opposite side, unobserved. In the present case the large village of Herzogswalde might have harbored enemies; hence the captain's befitting caution. It is ascertained that the group of horsemen south of Liebstadt is Sergeant L——'s patrol (connecting-post). After the captain had scanned the whole surrounding country with his glasses without discovering the enemy, the officer, who had returned from Knoll 185, reported that from the latter point (whence a view could be had to beyond Waltersdorf, as far as Seubersdorf, the Seubersdorf Forest, and Willnau) neither our own troops nor those of the enemy were visible. The officer there overtook the patrol sent around Royer Forest; it had not seen anything suspicious. The three troopers were left on the knoll until further orders and were continuing in observation.

Nothing is known of the enemy in Herzogswalde. The inhabitants are assembled partly in the village street and partly in the church, where, notwithstanding its being a week day and very early in the morning, religious services are in progress. The fields and trails are deserted. News of the approach of the hostile army, as well as of the interruption of telegraphic communication, has spread among the villages. Fear and terror have taken possession of the people. This is increased by false and exaggerated rumors and by the absence from home of the able-bodied men who have been called to the colors. Although these people do not talk much, still, the captain has the trouble of investigating several rumors brought to him by them. He recognizes these rumors as untenable and fantastic, still he takes the necessary time to investigate.

Then he has his advance party resume its march, first directing it to Knoll 153, and orders the patrol at Teufelsberg to ride towards Näglack, thus covering the advance of the troop on the south. On account of the supposed presence of a hostile

patrol in the neighborhood, Corporal M——'s patrol at Herzogswalde is increased to 6 men, with the following instructions:

"You will ride to the Teufelsberg, observing in all directions as far as you can, and watching the course of the troop as far as you can, which will advance on Guttstadt via Pittehnen. You will keep up communication between the troop and the regiment, and therefore will read all messages arriving and see that everything of importance is forwarded to the regimental commander, who should arrive at Gr. Hermenau shortly after 7 a. m. I must leave it to your judgment to send me any messages that are of importance for me and that still can reach me. You know that at 5 a. m. a hostile patrol of 12 men was seen riding from Lettau towards Herzogswalde, and that it has since disappeared. Do not allow yourself to be surprised by it."

The captain sends a short written report to the regiment, stating that the enemy could not be seen from Herzogswalde; that no further information had been received; that the troop had resumed its march towards Pittehnen, and that Corporal M——, with 6 men as connecting-post, had been sent to the Teufelsberg. Then (it is now 6.50 a. m.) he starts his troop at a trot and himself rides to the height near Wuchsing.

Let us devote our attention for awhile to Lieutenant F——.

Awakened at 1.30 a. m. in Maldeuten, he had received his orders in the captain's quarters at about 2 a. m., at once recording them. It would have been fatal if later his memory should have failed him concerning a name or number. Beidses, as a means of protection, the patrol-leader, as well as the one ordering him to duty, should have the orders in black and white.

The orders were as follows:

You will ride via Mohrungen–Gr. Hermenau, first to reconnoiter towards Kallisten and then along the Kallisten–Guttstadt road. I shall expect a report of your reconnaissance as far as the Passarge by 6 a. m. at Herzogswalde, whither I shall send a connecting-patrol.

The captain also imparted the information concerning the enemy, the regimental commander's intention, the troop's orders and those of Lieutenants B—— and C——, and that the cavalry of the 1st Division would advance from south of Narien-see towards the Alle.

Captain E—— has been busy the past three hours making arrangements for his scout, and he certainly is entitled to uninterrupted rest until the time of departure of his troop. Still, Lieutenant F——, before leaving his superior, must carefully think over his orders with his map before him, so he can ask for information on any points about which he may be in doubt. The bodily exhaustion and mental tension that are the rule in war must be fought at every point by will-power.

Concerning maps, it is to be assumed that all cavalry officers are provided with a General map and a General Staff map of the section under consideration. This may be so in your own country. The patrol-leaders' tasks would become most difficult without maps. In such cases they would have to prepare maps for themselves, showing at least the principal roads, villages, railways, and water-courses.

Lieutenant T—— had no questions to ask of his captain. But before having his patrol mount he satisfied himself, as far as darkness would permit, that his men were properly equipped for the trip. A lame horse or a sick man could still be exchanged. The hurried departure necessitated deferring an examination of the saddling and shoeing until the first halt. The horses could not be fed before starting, but it may be assumed that they had a good feed in the evening. It is of no consequence that the men start without breakfast. A patrol has an advantage over a troop in securing food. A piece of bread and cheese with a cup of milk can be had at almost any farm-house.

Although the ride as far as Mohrungen can be considered perfectly safe, still Lieutenant F—— forms a point or advance party of three men and has it precede the patrol about 300

yards on the highway. And until daylight 2 men ride as connecting-file between the point and the patrol. When first coming to a walk from a trot, the officer informs his men of the task before them and informs the sergeant, who is to take his place in case of accident, more in detail concerning the situation. The sergeant, too, will write down the import of the order at the first opportunity. Arriving at the railway station of Gr. Bestendorf the lieutenant inquires for news, but receives none, any more than at Mohrungen. From the latter place be makes telegraphic inquiry of Liebstadt, Gr. Hermenau, and Horn, but learns nothing new. He simply receives word that the patrol left Liebstadt at 2 a. m., and the one at Horn left at 3 a. m. The short halt at the railway station of Mohrungen was utilized to readjust the saddles, then the patrol continued along the highway via Georgenthal. About 4 a. m., at dawn, the patrol reaches Gr. Hermenau. A hasty survey of the terrain reveals nothing suspicious; the inhabitants know nothing about the enemy; a farmer who was in Alt-Bolitten yesterday afternoon states that the enemy had not been seen there either. Renewed inquiry by wire of Liebstadt and Mohrungen results in no change in the situation. Upon inquiry of Maldeuten, word is received that telegraphic communication with Landsberg and Pr. Eylau, as well as between Wormditt and Mehlsack, was cut off the 4th inst. The village president (of Gr. Hermenau), upon inquiry, states that at Kloben, Kallisten, Sackstein, and farther down the Passarge averages 15 yards in width and 2 yards in depth; that the meadows along the stream are marshy; that, as far as he knows, the stream can be crossed only on the bridges; and that there are no fords between Brückendorf and Pittehnen.

WHAT WILL LIEUTENANT F—— DO AFTER THIS, AND WHAT ARRANGEMENTS DOES HE MAKE AT ABOUT 4 A. M.?

Although the captain's orders specifically direct the patrol towards Kallisten, the leader realizes that Lieutenant B——,

who is to reconnoiter from Liebstadt towards Wormditt and Guttstadt, cannot see the country south of the Liebstadt–Guttstadt highway, and that therefore this task devolves on Lieutenant F——. It is simplified by the fact that the Passarge between Kallisten and Pittehnen apparently can be crossed only on the bridge at Sackstein. The next point of crossing above Kallisten, the bridge at Kloben, also lies within Lieutenant F——'s domain; while the Passarge south of this point properly can be left to the charge of Lieutenant C—— reconnoitering toward Jonkendorf and to the cavalry of the 1st Division. Therefore Lieutenant F——'s reconnaissance from Gr. Hermenau should at first be directed towards the Passarge between Kloben and Sackstein, and, being well-versed in map-reading, he concludes that the village president's statement concerning the passableness of the stream is correct, as there are no trails or roads indicated on the map across the broad meadows along the river. The work can be accomplished by sending small patrols towards the three bridges, while the leader with the remainder of his patrol follows on the central road to the vicinity of Lettau–Waltersdorf. The small patrols cover quite a large territory and it will be difficult for any hostile detachment to escape their notice. What one does not see, another will. The captain at Herzogswalde expects a report of the reconnaissance as far as the Passarge by 6 a. m. It is over 9 miles from Gr. Hermenau to the Passarge, and about 6 miles back to Herzogswalde. Therefore there is no time to be lost, and simultaneous reconnaissance towards all three bridges promises the quickest results.

But there are objections to this method of procedure. Each of the small patrols must contain at least 3 men, so that after sending back the first message, it may not be reduced to a single pair of eyes. Therefore the lieutenant would retain but the sergeant and 5 men. But he may encounter the enemy on this side of the Passarge. In this event the scattered small

patrols probably would be completely dispersed. Their messages largely would fail to reach the officer, and where are they then to go? Neither the messengers nor the leaders of the small patrols are sufficiently well acquainted with the general situation. They have no maps, and the absence of field-glasses limits their power of vision. They therefore can do little more than report the presence of hostile advance parties. The officer, with his few remaining men, cannot carry out his instructions even if he should succeed in slipping by the hostile detachments unobserved. After sending back a single message, he would be almost without escort. Being unable to protect his march with point and flankers, his activity would soon come to an end.

In time of peace, when fighting capacity does not count, where most persons have maps, where no one is captured, and where individual messengers safely ride past hostile detachments, the subdivision of an officer's patrol into a number of small groups may sometimes achieve the desired end. In time of war it exposes the leader to the loss of his escort, which is necessary for his safety, for reliefs to messengers, and for fighting. Ferreting out, recognizing, and observing the enemy essentially is the function of the leader. He alone has a general view of the situation, and with his map and field-glasses possesses superior facilities for the work. His men can perform only secondary duties for him; and small parties of them will be detached only for short distances and to accomplish some minor object—otherwise the reins will slip from the leader's hands and the thinnest hostile screen will become impenetrable. Should Lieutenant F—— conclude to send a patrol each to Sackstein and Kloben and with the remainder of the patrol himself to ride to Kallisten, he would reduce his detached parties to 6 men; but, should he encounter the enemy, he could not count on sending messages. He would not improve his case much. He would prefer to keep his men together as long

as possible and divide them only when it becomes absolutely necessary, and when a reassembling seems reasonably assured. He can at least advance to the vicinity of Herzogswalde with his patrol united.

Lieutenant F——'s decision as to the extent of territory to be covered by him, and his action concerning the Passarge, lead to the question: "Why is he required at first to reconnoiter only towards Kallisten? Why did not the captain say, 'Reconnoiter the Passarge from Kloben to Sackstein'?"

In the Field Service Regulations we see "that orders must state clearly what information is desired, what points are of special importance";* and it undoubtedly was of importance to the captain that on his arrival at Gr. Hermenau he should have news not only of Kallisten, but of the entire Passarge within reach of this patrol.

It must be admitted that more detailed orders in this particular would have been desirable. But the captain had a right to count on the officer's interpreting the orders in the manner intended. As a rule, it must be sufficient to give the general direction—the main line of advance—in which a reconnaissance shall take place. If, in addition, the patrol commander is informed of the orders of the neighboring patrols, his discretion and energy may be trusted to look out for the intervening country.

The second part of the order simply calls for a reconnaissance of the Kallisten–Guttstadt road. But no officer on this account would claim that hostile detachments off the road did not concern him. At Maldeuten no special importance could be assigned the bridges over the Passarge because the captain so far had no information as to the passableness of the stream. We also must bear in mind the many arrangements we had to make hastily and late at night before condemning any failure of his to go into minute details in any particular case. Too

*See par. 75, F. S. R.

great anxiety easily leads to pedantry and certainly would have delayed Lieutenant F——'s departure. A fault-finder even might take exception to the word "reconnoiter," and ask that the officer be told to what extent the reconnaissance should be carried—whether hostile patrols, cavalry in close formation, or even the infantry in rear of these should be sought out. Lieutenant F—— very properly asked no questions of this sort when he recorded his orders. The captain simply could have replied that he was not a clairvoyant, and could not know in advance what important things might happen at the front. The value of an officer's patrol materially depends on the military judgment of the leader, who should be able to grasp the situation and work into his superior's hand without previously receiving an enumeration of all details—a feat of which the latter would not be capable.

Lieutenant F—— will be able to learn from the inhabitants of Gr. Hermenau whether the Teufelsberg affords as good a point of view as is to be inferred from the map; if it does, then this becomes the next objective. It seems less advisable to go there around the south side of Royer Forest than to gain the eastern edge of the forest by the Gr. Hermenau–Herzogswalde road and then to continue across the hilly country between the village and the forest. In this way we shall obtain a quicker and better view of the road-forks at Herzogswalde.

Although, in the darkness and while covered by the lake to the eastward, the patrol could safely advance (to Gr. Hermenau) with only a point in advance, from now on greater precautions will be necessary to prevent an unexpected clash with hostile detachments. A mounted patrol cannot crawl, but must advance rapidly. Its safety depends on a skillful utilization of cover and continuous and vigilant watch for the enemy in every direction, so as to discover the enemy before being itself discovered. As spying and feeling for the enemy is very difficult while going at a rapid gait on horseback, the movements of a

patrol will usually be by rushes, as is the case with the cavalry point of an advance guard.

A detachment on patrol duty will be organized in such a way that certain designated men are permanently held responsible for the observation of the country to the flanks and rear, with authority to leave the road as necessary to reach good view-points or to accompany the patrol with a lateral interval, but without becoming conspicuous at a distance. There has been endless discussion as to whether it is better for a patrol to advance as a compact body or on a broad front. There is no formation that will apply to all cases. On a road through a dense forest, a compact formation may be best, while in a narrow valley flankers might be very necessary. Only in exceptional cases should the patrol-leader ride with the point, as when he alone is able to find the way or where there is no special danger. He should not unnecessarily expose himself to the danger of capture.

The arrangements Lieutenant F—— has to make at 4 a. m. consist in dividing and instructing his men in accordance with the foregoing principles, at the same time showing them the map, explaining the situation and informing them of his immediate intentions.

He will have the nose-bags filled with oats at Gr. Hermenau. Who knows if there will soon be another opportunity to do this? The supply of grain carried along enables the patrol to feed at any secluded spot without again visiting a village.

The men can take advantage of the short halt at Gr. Hermenau to get their breakfast and lay in a supply of food for the future. Of course the officer protects himself against surprise by posting sentries, and does not allow his men to remain within inclosures. In France this resulted in the capture of many a German cavalry patrol, and even in your own country it is a dangerous practice.

In leaving Gr. Hermenau the officer has the point precede the patrol at a considerable distance. The point must ride to the eastern edge of Royer Forest, the patrol not following into the forest until it is informed, by pre-arranged signal from connecting files, that the field is clear.

Using the necessary cautionary measures and after vainly questioning the inhabitants of Narien mill,* Lieutenant F——, sharply looking to all sides and into the depths of the forest, arrives at its eastern border. Then, after sending two troopers to Herzogswalde to make inquiry, and, riding outside the village, to rejoin the patrol, Lieutenant F—— takes the patrol through low-lying ground to the Teufelsberg. This prominent hill also might have attracted hostile troopers; therefore the point of the patrol advances towards it considerably in advance of the remainder of the party. At 4.40 a. m. the top of the hill is reached. The sun has risen, but the hazy spring morning does not admit of a distant view. But the highway north and south of Waltersdorf can be plainly seen as well as the country about Bergling and Reichau, Gr. Trukainen, Näglack, Banners, and Prägsden. The 2 troopers who had been sent to Herzogswalde reported that nothing was known of the enemy at that point. The people on the farms near the Teufelsberg say the same thing.

Nowhere in road or field is man or beast visible.

The officer decides to continue the advance and, to avoid the highway, will go along the Sanglau–Bergling road, whence he hopes to be able to watch the highway and country just west of it and get a glimpse of the Kallisten–Seubersdorf road. But it now becomes necessary to send a detachment to Sackstein. The sergeant, who in case of necessity must command the patrol, is not selected for this duty, but an adroit lance corporal and 2 men, who are given the following instructions:

*"Narien M," east of Gr. Hermenau, on 1:100,000 map.

'You will ride to Sackstein and see if anything can be learned about the enemy, also carefully questioning the inhabitants. Send report of your investigation to the troop at Herzogswalde. It is about 5 miles to Sackstein, and, as the troop commander expects a report by 6 a. m. a rapid gait must be taken —about 7 or 8 miles an hour. Should the connecting-patrol sent by the troop to Herzogswalde not yet have arrived, the report must go back to Gr. Hermenau. From Sackstein you will try to rejoin your patrol as soon as possible via Mathildenberg."

The officer shows the men on the map the route they should follow (also pointing it out in the country before them), shows them the route he will follow, and gives them the names of the villages in sight. He sees the 3 men depart and then continues on his way.

Shortly after 5 a. m., as he reaches the fir thicket north of Sanglau on the Herzogswalde–Sanglau road, he sees the point taking cover behind the nearest buildings of Sanglau and signalling, "Enemy in sight." The connecting-file drops behind a little knoll and repeats the signal. Lieutenant F——, looking across some underbrush (where the letter *L* of "Lettau" is on the map), discovers 12 troopers trotting along the road from Lettau towards Herzogswalde; 2 men about 100 yards in advance of the point. Nothing is seen on the road north of Lettau, nor at Waltersdorf or on the road between this point and Mathildenberg. Looking through his field-glasses, the lieutenant becomes satisfied that the men are hostile troopers.

WHAT DOES LIEUTENANT F—— DECIDE TO DO?

Instead of discussing the subject now, I should prefer that instruction be derived from the events following, as far as these may serve the purpose. Therefore I shall proceed with the narrative and return to particular points later.

Lieutenant F—— remembers several cases in his peace service where superiors called attention to the directions in the

Field Service Regulations that the prime duty of a reconnoitering patrol was to see—combat being simply a means to an end. He cannot remember a single case where the so-called "battling" of patrols met with the approval of superiors. In every instance the opposing patrols got out of each other's way and both continued their reconnaissance. To be sure, the young officer realizes that war may on occasion demand a different method of procedure. But on careful examination of the case he remembers that the Regulations state that "patrols should avoid combat unless it is absolutely necessary in the execution of their orders."* As the hostile patrol apparently is about to ride past him into the woods, presumably it will not prevent his continuing his reconnaissance. Therefore, as soon as the enemy has reached the woods, he trots ahead across a meadow, keeping a sharp lookout to the rear. But before doing this, he sends the message of which we already know:

> Twelve hostile troopers are riding from Lettau towards Herzogswalde. I shall continue my reconnaissance via Sanglau towards Kallisten. I have sent a lance corporal and 2 men to Sackstein to report direct to the troop.

The messenger is ordered to rapidly ride between Ponarien and Royer Forest, and then via Narien mill to Gr. Hermenau. He is to take advantage of the woods to cover himself from the hostile patrol. Sending the message is in accord with the paragraph of the Regulations which says that "as soon as it is certain that the enemy has been discovered, a message should be sent."† Lieutenant F—— considers that one trooper is sufficient to carry the message. He must economize in horses and men and has reasons to hope that the man will succeed in reaching the goal which is near. The man cannot be sent via Herzogswalde as he might easily fall into the hands of the hostile patrol. Exception might be taken in various ways to the wording of the

*See par. 80, F. S. R.

†See par. 79, F. S. R.

message. The captain woefully misses any definite mention of the extent to which the reconnaissance has progressed; for he can only indirectly learn by questioning the messenger that Lieutenant F—— has seen nothing of the enemy, aside from the 12 troopers, not even on the Näglack–Waltersdorf–Kallisten road; but to what extent this road was visible the captain does not learn. It is fortunate that the messenger remembered the name "Waltersdorf." But the exacting captain may forgive the young patrol-leader, should he meet the latter again and learn how hurriedly the message was written and how his attention was almost constantly directed to the hostile patrol.

Carefully taking advantage of the conformation of the ground, Lieutenant F—— reaches Seubersdorf (R. G.)* at 5.45 a. m. From the heights near Bergling the highway is visible from Waltersdorf to Kallisten, but nothing is noticed on it, any more than on the heights near Deppen which limit the view to the east. In Seubersdorf the inhabitants say that about an hour ago 12 to 15 hostile troopers passed through the village on the way towards Willnau.

WHAT ARRANGEMENTS MUST LIEUTENANT F—— MAKE NOW?

Lieutenant F—— started with 1 sergeant and 14 men, of whom he sent 3 to Sackstein and 1 to Gr. Hermenau, leaving him 1 sergeant and 10 men. His captain certainly would like to learn very soon what the lieutenant knows up to now, especially as the message concerning the reconnaissance to the Passarge cannot be delivered by 6 a. m., as originally ordered. By 6 a. m. the troop was to be at Gr. Hermenau, but would hardly remain there. Should it go towards Liebstadt or Pittehnen, the message even if forwarded by the connecting-post at Herzogswalde, would reach the captain rather late and would lose its importance. Should the troop advance via Sackstein or

*"R. G.," abbreviation for *Ritter-gut*, a knight's manor.

Waltersdorf, it would be approaching the patrol, and a message from the latter would be less urgently needed. Already at Bergling the lieutenant debated about sending a report stating that no enemy was visible on the highway as far as Kallisten, because this would have taken at least two messengers without his having cleared up the situation as far as the Passarge. Not the spirit but only the form of the captain's orders would have been complied with in this case by sending a report to Herzogswalde by 6 a. m.; and, besides, the road thither presumably was blocked by the hostile patrol that had recently gone in that direction. Even now the message must be forwarded by at least two men, as the hostile troopers in rear render the region unsafe. Should the three troopers sent to Sackstein fail to rejoin the patrol, it would be reduced to eight men, and yet the day's work which may still call for a number of messages, has hardly begun. It is proper to consider whether Lieutenant F—— should not defer writing his next message until he can report something more definite concerning the state of affairs on the Passarge, more particularly because in Kallisten or the neighboring villages he probably will learn something more about the hostile detachments that crossed the stream early in the morning. Then, should the message not reach the troop, presumably it will reach the regimental commander, who, as the lieutenant knows, expects to arrive at Gr. Hermenau by 7 a. m.

Nothing would be gained by following the hostile detachment that went towards Willnau. It ought to run into the cavalry of the 1st Division, and hardly could be overtaken. Lieutenant F—— at once turns towards Kallisten. The ride to this point requires caution, as the enemy may be holding the Passarge bridge, but it would take too long to go via Kloben. The officer carefully examines Kallisten through his field-glasses and questions the occupants of the mill (at *K* of "Kallisten" on the map), but learns nothing. Then the point rides ahead towards the village, while 2 men at a rapid gait follow the Weng-

litten–Kloben road along the left bank of the Passarge to find out the nature of the stream and examine the construction of the bridge at Kloben.

The point finds that there is no enemy in Kallisten and rapidly rides to the nearest height east of Deppen. Lieutenant F——, constantly keeping a sharp lookout to the rear, follows into the village as far as the bridge. The lance corporal with one private from Sackstein trotted up to this point and reported as follows: "Nothing was seen of the enemy in or near Sackstein; and the villagers knew nothing about him." He had sent one man with a written message to Herzogswalde and then rode along the edge of the woods on the left bank of the Passarge without seeing anything suspicious in the river valley or on the eastern ridge of hills. Upon being questioned, the lance corporal is unable to give definite information concerning the construction of the bridge at Sackstein, and very properly is censured for it by the lieutenant. It is true that the patrol received no specific instructions to examine the terrain, but this is so much a matter of course as not to require special mention and would always be attended to by a skillful patrol-leader. It is inexcusable that the importance of a bridge across an unfordable stream should not have appealed to the patrol-leader.

The inhabitants of Kallisten state that early in the morning a hostile body of horsemen crossed the bridge and rode off on the road to Waltersdorf. Statements differ as to the strength of the body. There were 6 men in the lead, followed, according to some, by 30 or 40 more; according to others, by an entire troop.

The lieutenant is inclined to believe that the latter estimate is an exaggeration, as he probably would have noticed so large a body in the vicinity of Bergling–Waltersdorf, and as only 12 to 15 men are reported to have passed through Seubersdorf. He argues that west of Kallisten a part of the 30 or 40 hostile troopers took the Waltersdorf–Lettau road, and the remainder

the road to Willnau. A hostile officer who spoke German pretty well inquired at Kallisten about the roads and about our troops. The villagers answered truly that they had seen no soldiers, but that a large army was advancing from western Prussia. A trooper, sent back by the hostile officer, took the road to Heiligenthal. Lieutenant F—— further inquires about the depth of water in the Passarge and about the existence of fords, orders the sergeant to have a sentry-post at the western exit of Kallisten to guard the bridge and keep open the line of retreat, and then gallops to the point. The latter has halted about 650 yards east of Deppen on the road to Heiligenthal, which road can be seen for about 1,100 yards. Aside from this the view extends only as far as the nearest woods north and south of the road and to Knoll 123 on the road to Schlitt.

As Lieutenant F—— notices nothing of importance, he is about to write his message when he concludes that it would be advisable to survey the country from Knoll 157, which is near by and promises an extended view. Leaving a connecting-file behind, he gallops after the point which he had sent ahead, and finds his expectations realized. The view extends beyond Heiligenthal and Ankendorf to Queetz. To the north he can follow the highway almost as far as Scharnick and can overlook the more elevated parts of the ground between this highway and the Passarge. South of the Heiligenthal–Queetz highway the view is limited by Knoll 170 (southeast of Heiligenthal), but between this and Height 157 near Alt-Garschen the view extends to Rosengarth, and south to the vicinity of Schlitt. To the rear (west) he can see the heights between Kloben and Seubersdorf, but the Willnau–Seubersdorf–Kallisten road cannot be seen. Examining this region, first with the naked eye and then with his field-glasses, and at the same time orienting himself by his map, he concludes in a few minutes that nothing hostile is in sight. The fact that none of the population is work-

ing in the fields makes it less difficult to reconnoiter than in time of peace.

WRITE THE MESSAGE TO BE SENT AT 6-30 A. M.; AND HOW WILL IT BE FORWARDED?

With the renewed reminder that my solution shall serve only as an example and not as a model, I shall give the wording of the message, because it presents my ideas in the briefest form and because the continuation of the study requires this as a basis.

SENDING DETACHMENT.	LOCATION.	DAY.	MONTH.	TIME.
Officer's Patrol, Lieut. F——, 1st Cav.	Knoll 157, S. W. of Heiligenthal.	5	5	6-30 a. m.
No. 2.	Received.....			

To Captain C——, 1st Cavalry:

After having avoided the hostile patrol of 12 troopers near Lettau (whose presence I have already reported), I came here via Bergling–Seubersdorf (R. G.)–Kallisten without seeing anything of the enemy *en route* or on the continuously observed Waltersdorf–Kallisten highway. Inhabitants of Seubersdorf say that before 5 a. m. to-day 12 to 15 hostile cavalrymen passed through their town, going towards Willnau. Inhabitants of Kallisten state that early this morning a hostile cavalry detachment rode through their town. Estimates of the strength vary from 30 men to a troop; the latter seems to me excessive. A hostile officer who spoke German inquired in Kallisten concerning the roads and our troops. He was told that none of our troops had been seen, but that a large army was approaching from west Prussia. The officer sent back a trooper, who took the road to Heiligenthal. The hostile detachment went westward along the highway. I presume that part of it went towards Willnau, and the remainder towards Waltersdorf–Lettau. A lance corporal of my patrol found no enemy at Sackstein and sent a message to Herzogswalde. From here nothing is visible of the enemy towards Scharnick, Queetz, Rosengarth, or Schlitt. I shall continue reconnoitering towards Guttstadt, and intend keeping north of the highway.

The bridge at Kallisten consists of a broad stone arch; the one at Kloben is narrow and of wood, but suitable for wheel traffic. The Passarge is quite high; inhabitants claim that it averages at least 2 yards in depth. The meadows are marshy, and no fords exist in the neighborhood. Apparently passage of the stream is everywhere limited to the bridges.

Inhabitants of this vicinity claim that the bridge at Sackstein is of wood, but suited for wheel traffic. Although the road thence to Waltersmühl is used by teams, it in part is an unreveted causeway.*

F——,
Lieutenant.

A trooper of the point is designated to take back the message and received the following verbal instructions:

"In the first place, you will ride back to the bridge at Kallisten, tell the sergeant to give you Private P—— as a companion, and then to take the entire patrol to the edge of that grove of trees (grove northeast of Deppen), where I shall join him.

"Your further instructions are to take this message to Herzogswalde. The captain intended posting a patrol there to forward my messages. You will deliver the message to the patrol with the following orders: The message should be sent to the captain if he can be readily and easily reached. Should there be any doubt about this, the message must go to the regimental commander, who expected to be at Gr. Hermenau at 7 a. m., and presumably will continue his march from that point. It is more important that the colonel, than the captain, should receive the message. If you should not find the patrol at Herzogswalde, you must look up the colonel. The envelope should remain unsealed. Carefully read the message and impress its contents on your mind. The important points in it are: Kallisten and the Heiligenthal region are free from the enemy; Sackstein was so as late as 5.25 a. m. A hostile cavalry detachment early this morning rode through Kallisten; a part of it rode towards Willnau, the remainder towards Waltersdorf–Lettau. A hostile messenger rode from here towards Heiligenthal. I am going towards Guttstadt.

"You will ride along the highway through Mathildenberg, then through Bergling–Sanglau back over our route, and must

*The latter statements naturally would be omitted from the reader's solution.

carefully avoid meeting the hostile patrol in our rear. You will take the message to the captain, if you should see our troop. You will not return to me, but will join the troop or the regiment. Try to reach Herzogswalde by about 7.30 a. m. The distance is about 7 miles, so you must go alternately at a trot and walk."

Lieutenant F——'s message, as well as the instructions he gave, deserve closer inspection.

To begin with, it may seem strange that the message is designated as "No. 2." The one sent at 5 a. m. was "No. 1." The lance corporal sent to Sackstein knew nothing of the latter fact, and therefore numbered his "1," with 'sending station' as "Lieutenant F——'s officer's patrol." His signature and the contents of Lieutenant F——'s first message will help explain the apparent inconsistencies to the receiving officer. But it is a question whether the message sent at 6.30 a. m. should not be numbered "3," The numbering of messages is intended to help the receiving officer determine whether any have gone astray. In this event, it is hoped he will investigate and be able to supply the deficiency. The case under consideration shows that the directions don't always fit; and my readers probably have had the same experience themselves. For example, if a patrol must send messages to different parties, as is the case with Lieutenant C——, who not only reports to the regimental commander, but, under certain conditions, also to the cavalry of the 1st Division (see page 14), messages can hardly be numbered without causing confusion; and even the instructions that a series of numbers shall hold for one day only will cause misunderstandings. The moment such specific instructions cannot be generally carried out they are of doubtful value. They draw on a painstaking patrol-leader's time and energy and produce false impressions at the receiving station. Had Lieutenant F—— designated his message as "No. 3," his captain probably would have concluded that

one had been lost. Furthermore, experience teaches that where numerous messages are received there is seldom opportunity to check up the numbers, as should be done to obtain the object in view. The one attempting to do this will have endless trouble and confusion. In time of peace it usually takes place at the end of a maneuver, and then serves as a point for the discussion following. This should prove the small practical value of a requirement whose discontinuance would help to simplify the message system. It would be more valuable in any message briefly to refer to a preceding one, as was done at the beginning of the foregoing example.

The address also demands our attention. Lieutenant F—— can expect his message to reach Captain E—— only in case the troop has followed towards Kallisten. He himself specifically tells the messenger that it is more important the message should reach the colonel than the captain. The reconnoitering of Troop A is to serve as a basis for Colonel A——'s decisions, and although Captain E—— must retain control of the reconnaissance service as much as possible, still, in this case, it is highly probable that the message will not reach the captain, but the colonel. Therefore the instructions given the messenger were right and proper. Why, then, was the message not addressed to Colonel A——? Lieutenant F—— fears that the message might fall into the hands of the hostile patrol in his rear, and that in this case the colonel's address might be a valuable pointer for the enemy. We must admit that he is right, and that his caution is reasonable. Our Field Service Regulations wisely omit instructions on similar points. The practical soldier always will be able to help himself; for the impractical one there could not be minute enough instructions given to cover every case and its exceptions.

The captain's not having told or even intimated to Lieutenant F—— what route he would follow from Gr. Hermenau makes it more difficult for the lieutenant now and later to cor-

rectly address his messages. But even if the lieutenant before leaving Maldeuten had asked the captain about this, he would have received no definite answer. On the contrary, an erroneous designation of the route might easily divert the messenger service into wrong directions. In the body of the message the information concerning the direction taken by the hostile messenger upon leaving Kallisten is not without importance; and Lieutenant F—— should have inquired about the direction had the information not been volunteered.

The description of the terrain in the message is all too often omitted in time of peace. Its value for the higher cavalry commander is patent. It must simplify matters for Colonel A—— to learn, already at Herzogswalde or Gr. Hermenau, whether the Passarge can be forded or can be crossed only on the bridges; and he would have cause to praise an officer who in sending such a message distinguished between what he himself had seen and what was hearsay. Unfortunately, as later transpires, the colonel is quite angry on account of the illegible writing, which lessens the value of the message.

The length of the message is justified by its importance. The Field Service Regulations very properly state: "It is not the profusion of messages that counts, but the quality, such as will clear up the situation and are exhaustive and suitable as a basis for further action." Lieutenant F—— was able only to report on small hostile scouting parties, and has seen nothing of the enemy near Heiligenthal; but this very fact will be of importance for the regimental commander. And the lieutenant's accurate statements afford a safer basis for future action than if the message read: "There is no enemy in the region as far as the Passarge or near Heiligenthal, with the exception of a few hostile patrols on the west bank of the Passarge." The wording would be "short and sweet," but might arouse the regimental commander's doubt as to its accuracy and reliability.

The trooper who is to carry the message will have to prick up his ears and tax his wits if he is to understand and remember his lieutenant's instructions, which, by the way, hardly could have been shortened.

The route to be followed by the trooper is easily described if the man carefully observed the country during this morning. An experienced patrol-leader will embrace every opportunity to instruct his men concerning roads and names of localities, so they could find their way back. He thus leaves behind a string of landmarks—Däumling's* white pebbles. Without these the enlisted man will lose himself, even in friendly territory where the inhabitants can help him. How much more difficult is it for him in hostile territory where the names of localities sound strange to his ears and the inhabitants either give no information at all or such as is false, and on occasion even endanger the life of a solitary horseman.

Lieutenant F—— did not mark the rate of speed on the envelope in the usual way. Even if the cavalryman is taught not to mechanically follow the rate of speed indicated, but that the horse's condition and the nature of the country may call for deviations, still, he does not as a rule find mile-stones along his route to regulate his speed. The explanation in the Field Service Regulations is of little assistance. "Ordinary" speed calls mainly for a walk; "rapid," mainly for a trot. How little shall he trot in the first instance, and how little shall he walk in the second? In time of peace it may be possible to drill messengers in these gaits, but in time of war there will be little left of the skill acquired, due to weariness of the horses from the extra weight they have to carry and the roughness of the country to

*Däumling," in German folk-lore, was the youngest of seven children whose indigent parents in a time of famine decided to abandon them in a dense forest. Däumling, overhearing the plot, gathered a lot of pebbles, and, when taken to the forest with the other children for the purpose stated secretly dropped these pebbles from time to time and afterwards by their means led the other children out of the forest again.—*Translator.*

be traversed that often is lacking in roads. In many cases 5 miles per hour (as prescribed for "ordinary") will not suffice, while 7 to 8 miles per hour ("rapid") would be unnecessary, or should not be required after a long ride, while a slightly slower gait is still possible. It is therefore praiseworthy if the sending officer also considers this point, and, deviating from the routine form, adds explanatory remarks. If the messenger is relieved from the necessity of estimating the number of miles per hour he is traveling, he can devote additional time to looking out for the enemy and examining the terrain, and is relieved from the necessity of estimating distances and of frequently consulting his watch, should he have one.

As the patrol, after but a short night's rest, has already traveled about 25 miles, Lieutenant F—— thinks best that his messenger take a medium gait which should bring him to Herzogswalde in 60 to 65 minutes.

Another point requires consideration. Lieutenant F—— gives the messenger a companion, notwithstanding the fact that he must husband his strength to the utmost. The insecurity of the district in which the enemy is already prowling about exposes a solitary trooper to great danger. Four eyes see better than two, and mutual assistance helps to overcome difficulties of the road. Two horsemen can help each other across swampy meadows and marshy ditches where one would be mired. If one horse becomes disabled, the other can carry the message farther. One man stands guard while the other inquires the way and questions countrymen. In a hand-to-hand fight the two support each other, and one of them, in case of necessity, can make use of his firearms. For these reasons we must approve Lieutenant F——'s sending the men together instead of writing a duplicate message and sending a copy by each man over a different route. The chances for safe delivery would hardly be improved in the latter case. Having each of the duplicate copies carried by 2 men would be an unwarranted

drain. With good instruction had in time of peace, it is unnecessary to caution that the message must not fall into the enemy's hands.

Lieutenant F—— continues in observation while writing the message and instructing the messenger. When he sees that the patrol, led by the sergeant, has reached the edge of the grove north of the Deppen–Heiligenthal road, he indicated to the point a knoll northwest of Heiligenthal, to which it is next to ride. He himself gallops to the grove and says to the sergeant: "I shall ride with the point. You will follow with the patrol to the left and rear under cover and will watch for signals from me." As the country is open and affords a good view in all directions, thus precluding a surprise, the officer considers it permissible to ride near the point, where he can use his own eyes and indicate to the point the route to be followed.

Keeping west of the Heiligenthal–Scharnick highway, whose shade-trees, though without leaves, afford some cover, and only peering over the crest of the ridge of hills, he passes Komalmen, whose inhabitants know nothing of the enemy, and arrives at Height 135 east of this village. The sergeant had been on Knoll 140 southeast of Waltersmühl, and had reported that nothing suspicious was visible from that point. The lieutenant had sent 2 men to Waltersmühl, who have just returned and report that nothing had been seen of the enemy in that village. The lieutenant scans the horizon, naturally looking mostly to the east. At this instant (7.25 a. m.) he sees 6 troopers on the Queetz–Guttstadt highway, northwest of Glottau, trotting towards Queetz. They are followed at a distance of several hundred yards by a body in close order. The shade-trees along the highway prevent an accurate estimate of the number. Besides, there is a group of horsemen visible on Height 150 northeast of Queetz (R. G.). The latter village itself is hidden by Height 138. East of Glottau the Glottau–Guttstadt highway is not visible. Finally, a single

trooper is seen trotting along the highway from Heiligenthal towards Ankendorf. Towards Lingnau–Neuendorf the country is visible as far as the highway connecting these points and is free from the enemy. Farther west, Knoll 141 at the north end of Zaun-see limits the view, then we see the roofs of Scharnick and Warlack, but not the Lingnau–Wolfsdorf highway Nor is there anything suspicious visible in this direction.

WHAT ARRANGEMENTS WILL LIEUTENANT F—— MAKE AT ABOUT 7.25 a. m., AND HOW WILL HE CONDUCT HIMSELF?

Apparently hostile cavalry from Guttstadt is following its patrols sent across the Passarge early in the morning, and in a very short time will bar the way via Kallisten.

Possibly communication via Sackstein will yet remain open for a little while. But after that the patrol's retreat will be seriously menaced and presumably it will be able to regain safety only by going in a northerly direction. But the enterprising officer thinks of safety only in so far as through its being threatened his undertaking might suffer. An officer is placed in charge of a patrol not only because his military judgment is considered superior to that of a non-commissioned officer, but because the utmost is expected of his determination and capacity for self-sacrifice. Should he now ride back via Sackstein, he would be able to report only about detached hostile groups which would afford no basis for weighty decisions.

Lieutenant F—— positively must send a message concerning what he has just seen. He further decides to continue his reconnaissance and observe what is coming from Guttstadt, fully realizing the difficulties and dangers of his venture. He can depend on his horses and on his own nerves. He hopes to benefit by his past careful conduct, for the enemy apparently has not discovered him; and it is of prime importance that he remain undiscovered. Unfortunately, this requirement precludes his attempting to capture the hostile trooper now trotting

by before his eyes. The patrol under cover quickly rides into the grove on the southwest shore of Zaun-see and hides itself there. The lieutenant sends the sergeant and 3 men to Knoll 125 at the north end of the grove to observe without showing themselves, and himself remains in the south end of the grove, where he writes the following message:

Near KOMALMEN,
5 May 04, 7-35 a. m.

To Captain E——:

Six hostile troopers are trotting along the highway from Glottau towards Queetz; in rear of them follows a body of cavalry in close order, whose strength cannot be determined. A second group of horsemen is visible on Knoll 150 northeast of Queetz (R. G.). I shall remain east of the Passarge.

F——,
Lieutenant.

As the officer cannot see the highway near Queetz as well from the grove near Komalmen as he could from his former point of view, and as time presses, he must forego naming the strength of the hostile body in his message. In view of the reduced numbers of his patrol, he decides to send but one man with the message, for this purpose choosing the man who had been to Sackstein with the lance corporal. He directs the man to go via Waltersmühl–Sackstein to Herzogswalde, which route he still thinks available. The message again is addressed to the captain, though the messenger is cautioned that it is more important the colonel should receive the message. Again in this case the rate of speed is not marked in the orthodox way. Five miles per hour ("ordinary") seems too slow to him, and, considering that the horse already has traveled over 30 miles to-day, it will not be able to go these 8 or 9 miles at the rate of 7 to 8 miles per hour ("rapid"). Therefore he says to the messenger: "You will go at a slow trot, alternating with short distances at a walk." The messenger is directed to ride along the slopes in such a way that, without losing the opportunity to look around, he still will be fairly well concealed. He is to avoid habitations as much as possible, except that in Komal-

men he is to tell the people that the patrol, passing along in rear of the height, has gone via Warlack towards Kleinefeld. In this way the officer wishes to mislead hostile inquirers.

Leaving Lieutenant F—— to his own devices, the diversity of the situation will warrant our following the experiences and conduct of Lieutenant C——. The latter passed the night of May 4th–5th in the little farm-houses close to Horn railway station, and about midnight received the following telegraphic orders from headquarters of the 1st Cavalry:

1st Army Corps will march towards Mohrungen the 5th inst. and the 2d Army Corps via Liebemühl towards Locken. At 5 a. m. the 5th inst. this regiment will advance from Gr. Wilmsdorf via Mohrungen–Gr. Hermenau towards Wormditt–Guttstadt–Münsterberg. Troop A will leave Maldeuten at 4 a. m. to reconnoiter in advance of the regiment. You will start early in the morning on reconnaissance via Brückendorf towards Gr. Buchwalde–Jonkendorf; later joining your regiment via Kallisten. Send me information, if possible by wire, until 7 a. m. to Mohrungen, after that to Gr. Hermenau. Also send any important information to the cavalry of the 1st Division, which will advance via Mohrungen and the south end of Narien-see towards the Alle.

Soon after this Captain E——'s telegram from Maldeuten was received:

Troop A, 1st Cavalry, *en route* to Gr. Hermenau, will arrive at Mohrungen shortly after 5 a. m., and looks for reports at both places.

As Lieutenant C—— already knew in the evening that the telegraph station at Ziegenberg had been closed and that the one at Brückendorf no longer answered to its call, he decided to advance on the latter place with his whole patrol at 3 a. m. the 5th inst. He hoped to obtain better results on this day with fresh horses, and rightly feared that an expedition by night, when no survey of the situation could be had, would yield no adequate return. It was suspected as far back as Maldeuten that a hostile advance party had reached Brückendorf. More than this could hardly be determined during the night. Besides, Lieutenant C—— considered the condition of his patrol consisting of 1 sergeant and 12 troopers (quartered in the two farm buildings) of whom not more than one-half

dared sleep at the same time. Sending out 3 or 4 men would have made it impossible for the remainder to gain strength for the coming day.

There was no telegraph chart at Horn railway station, but the operator stated that in the vicinity there was nothing but the railway telegraph line, excepting a single wire between Locken and Osterode.

After providing for the destruction of the message tapes* at the office and after the members of the patrol were informed of the situation and the task of the patrol, he departed with it early on the 5th, via Gubitten, for Ziegenberg, and here encountered 3 hostile troopers whose retreat to Brückendorf he vainly attempted to cut off. Several shots were fired on the pursuers from the bridge, but without taking effect; and so the patrol assembled at the farm (north of the letter *c* in "Brückendorf") about 1,400 yards west of Brückendorf. Through the mist in the valley Lieutenant C—— could only make out that several persons, some on foot and some mounted, were moving about at the bridge. Lieutenant C—— learns from the farmer that hostile troopers, whose language he could not understand, had arrived in the village and at his farm the preceding evening; that they had taken a good horse from him and then returned to the station; that early this morning he had seen 3 troopers ride by towards Ziegenberg; and that he did not know how large a detachment of the enemy was at Brückendorf. Lieutenant C—— further learns that the Passarge is flooded, the water being at least 2 yards deep everywhere, and that there are no fords in the vicinity. The Passarge meadows recently were flooded, and can be crossed only by foot-men. There is said to be an old wooden bridge† over the Passarge

*These contain signals recorded in ink, giving a permanent record; thus differing from our system, where the signals are received by sound alone.

†See map 1:100,000.

opposite the north end of Brückendorf which can be approached only from the left bank—there being no road through the swampy meadow on the right bank. At Alt-Kochendorf there is said to be a single stringer of a former bridge across the Passarge, a narrow foot-path leading to this from both sides of the stream. The next crossing further down is said to be at Kloben, where there is a good wooden bridge.

WHAT ARE LIEUTENANT C——'S INTENTIONS AND ARRANGEMENTS AT 4 A. M.?

(As a matter of course, the message on page 23 might be altered as thought best; its contents were intended simply as a basis for Captain E——'s decisions.)

It is with Lieutenant C—— as with his comrade, Lieutenant F——; his main idea is to make an extended reconnaissance to the Alle. Lieutenant F—— was unopposed at the Passarge crossing of Kallisten, but Lieutenant C—— at Brückendorf is opposed by hostile fire-arms. Even if the opponents should be few in number, it would be very venturesome to attempt forcing a crossing afoot or on horseback. Swampy meadows preclude his using the nearest bridge, which in addition lies within effective fire of the enemy. It would require at least an hour and a half to go around by Kloben, with the possibility of finding the bridge occupied by the enemy. It would be less of a detour to go via Magergut–Kämmersdorf, but this is considerably to one side of the route to be followed by the regiment. It would not be surprising if the officer desisted from any further attempt at penetrating farther to the east, thinking it impracticable to do so at this time, and hoping that the enemy himself might soon advance and open the road. He might be confirmed in this view by the thought that he would be able to keep the enemy in sight, who also could find no crossing near by, and thus render good service to the cavalry of the 1st Division which is following. But on further reflection he must see that

it is highly improbable the enemy himself will open the troublesome door for him. If the enemy leaves but a few men behind, the door will remain closed. Upon further reflection he realizes that his solicitude for the divisional cavalry is simply an excuse with just enough color to quiet his military conscience, which condemns inactivity and a waiting policy in a patrol. It is not unreasonable to assume that the three hostile troopers who barely escaped across the Passarge will exaggerate the number of their pursuers and induce the leader to remain at the bridge and not venture to an encounter with us on the left bank of the Passarge. In the meantime we have a more free field. If Lieutenant C—— looks beyond his regiment and the divisional cavalry, it may occur to him that a message by wire from Locken to Osterode may reach Army headquarters sooner than through regular channels of the 1st Army Corps. If only the message should amount to something—if it only really cleared up the situation! He can hardly hope to discover anything of importance in the corner between the Passarge and Mahrung-see. He can report that he encountered the enemy at Brückendorf, and then cheerfully intrust the divisional cavalry with the task of settling with the hostile parties in front of the Army Corps. He is anxious to take advantage of the hours' start he has over his troop and of the carefully treasured strength of his horses, and dismisses the last remaining objection—viz., that his patrol, in advancing via Kämmersdorf, puts itself on the line of march of the neighboring corps. If the latter's cavalry is far enough in the lead, it will be all the easier for the patrol to advance. He decides to send a message to the telegraph station at Horn, citing his further instructions (which, therefore, should have been included in the message on page 23) and then to ride forward under cover towards Magergut, keeping the Passarge bridge under observation so as to take advantage of any opportunity that might offer there. Then he intends advancing via Kämmersdorf towards Schaustern. East of Kämmersdorf the

Passarge does not flow through open meadows, but between closely wooded banks. Should the bridge on the road to Schaustern prove unserviceable or be blocked by the enemy, the two yards' depth of water has no terrors for him or his horses. At Kämmersdorf he will be able to learn of places suitable for swimming the stream. It is very important to be cautious during the advance. The point must keep well to the front, for it is highly probable that hostile troopers also will be encountered in the vicinity of Kämmersdorf. To this point Lieutenant C—— wishes to ride rapidly and then, before going any farther, will watch the highway at Brückendorf for a little while. In the meantime inquiry is to be made as to the condition of affairs at Locken and whether telegraphic communication still exists with Osterode.

To be sure, a doubt arises as to whether Colonel A——, who expressly prescribed the route via Brückendorf, will approve of the deviation to the south. But on various occasions during peace maneuvers Lieutenant C—— had noticed that his colonel approved of the decision of a subordinate not because it was the best, but because it *was* a decision. He pins his faith to this and unhesitatingly proceeds to carry out his plan.

The patrol reaches the vicinity of Jagd-see* unmolested; the highway towards Locken is deserted, two troopers are sent to the latter place. The sun shines brightly and has scattered the mist. A glance through the field-glasses shows no change at Brückendorf. No one is visible on the left bank of the Passarge. The patrol crosses the highway bridge across the low ground between Jagd-see and Mühlen T.† and turns to the left into the country road towards Kämmersdorf. As the point reaches the grove northeast of Mergel-see, the leader overtakes

*See map 1 :100,000—a small lake marked "Jagd-S." south of Mahrung-see and west of Kämmersdorf.

†A long narrow mill-pond just west of Jagd-see.

it at a gallop and at the first glance to the east from the grove he discovers several horsemen on the Kämmersdorf–Schaustern road.* They are several hundred yards east of the cemetery,† and, trotting towards it along the road that is visible almost to the edge of the woods, Lieutenant C—— counts 12 men and recognizes them as enemies. A second glance shows that there is no enemy in sight as far as Point 128 on the Locken–Stenkienen road or towards Eissing-see. The main body of his patrol is just trotting across the bridge between Jagd- and Mergel-see. The two troopers sent to Locken have not yet returned.

WHAT DOES LIEUTENANT C—— DECIDE TO DO?

A signal to the patrol and a short gallop would carry it back to the highway and Ramten mill, to a safe point of observation, though under penalty of separation from the 2 men sent to Locken, who would have to try to rejoin the patrol along the left bank of the Locke. To insure a union with these 2 men, the patrol might ride back to Locken.

The hostile patrol might be avoided in yet another way: By rapidly riding along the eastern shore of the Mergel-see and hiding in the vicinity of Gr. Schwarze-see until the enemy has passed, unless one of his scouts, riding up the high ground east of the latter lake, should discover the ruse, and unless other enemies should approach from Pulfnick. It is hardly practicable to secure a hiding-place at Kämmersdorf in the few minutes available. And with the most patriotic motives of the inhabitants the matter could not be kept secret, aside from the rattle of accouterments and neighing of horses. Neither does the the grove near the road, in which Lieutenant C—— now is, offer any place of concealment.

*The place where Lieutenant C—— halts is but a trifle lower than Knoll 108, so that, being mounted, he can look over and beyond it.

†On the Kämmersdorf–Schaustern road, about 700 yards east of the former place.

The young officer does not long consider. It never occurs to him to hurry back to Ramten or Locken. Without taking his eyes off the enemy he quietly says to a member of the point: "This way with the patrol at a gallop!" Then he loosens his sword in its scabbard, forms his approaching troopers within the grove so they cannot be seen without, and awaits his opportunity. The enemy halts at the cemetery; 2 men ride into the village, the remainder go to Knoll 109. After anxious minutes, the two hostile troopers reappear at the south edge of the village and signal to the others, and, while the former ride along the edge of the village towards the bridge between Jagd-see and Mergel-see, the larger body trots towards the edge of the grove—straight at the corner where our patrol is halted. Lieutenant C—— allows it to come quite near and then charges it, disregarding the detached troopers. The *mêlée* is soon ended. Eleven troopers against ten; powerful well-ridden horses against hardy but underbred ones. In addition to this, there is the advantage of surprise. The hostile point of 2 troopers will not change the result, even though it arrived on the scene. The disparity in numbers under the latter contingency might even be more unfavorable without affecting the victory.

For the present we shall not discuss whether Lieutenant C—— acted correctly and judiciously. We shall let later events decide, as in the case of Lieutenant F——, who at Lettau allowed the hostile patrol to ride past unmolested. Identically the same conditions are never repeated either in life in general or in war, and the reader surely will have noticed the difference between the two cases. In accordance with his orders, Lieutenant F—— could continue his reconnaissance, via Kallisten towards Guttstadt, without being detected. Lieutenant C—— would have been able to continue his advance only in case he succeeded in hiding himself with his patrol on the eastern shore of Mergel-see, which was highly improbable. His soldier's pride resented the idea of a retreat to Ramten or Locken before

an enemy but slightly superior in numbers; for our cavalryman felt himself more than equal to the enemy under existing conditions—a feeling to be encouraged and not repressed. Even if the patrol were defeated in the encounter, for example, if at the decisive moment hostile reinforcements appeared, no stain would attach to the officer's escutcheon of honor, a gain so great that no theory may thrust it aside unheeded. An officer would forever lose the confidence of his men, who ought willingly to follow him to certain death, should he but once give them cause to suspect him of cowardice.

At the most, Lieutenant C——'s military judgment might be criticised. But we cannot refuse to praise his quick decision and skillfully led attack, which brought success. It might be objected that, instead of charging in knightly fashion, he should have used his rifles. Roosevelt's Rough Riders or a mounted body of war-experienced Boers would have done the latter, and it is recommended that every one of our cavalry officers carefully consider in individual cases, whether the saber or bullet promises the best results. Here at Kämmersdorf dismounting to fight on foot would have had to be executed in considerable haste, and had the enemy changed the direction of his march and not ridden into the ambuscade, valuable time would have been lost. He would have been obliged hastily to return rifles and mount again. And, if dismounted, an excited man very easily might have pressed the trigger prematurely and spoiled the surprise. Against single troopers the rifle promises good results only at close range. How difficult it is to drop fleeing game at even 100 yards' distance! How much greater is the nerve-tension of the soldier than that of the hunter, and, besides, the former must aim more than 10 yards ahead of a trooper galloping by at 600 yards' distance. The rattle of 20 to 30 shots would alarm the whole neighborhood and would attract all hostile detachments within hearing. Lieutenant C—— did right to remain in the saddle, whereby

it became easier to cut off the enemy's retreat and capture prisoners.

As a basis for the continuation of our problem the following will be assumed: Two severely and two slightly wounded enemies and one unwounded one fell into our hands; likewise two sound horses. Four hostile troopers, including an officer, escaped towards Pulfnick, and three towards Schaustern. At 5.10 a. m. Lieutenant C—— has assembled his patrol at Knoll 108, excepting two men whom he has sent to Height 128. Of his men, one was seriously wounded by a saber-cut across the face, another was lightly wounded, also in the head. With the exception of a few scratches—the lieutenant himself received a severe blow across his arm with the flat of a saber—no damage was done. The two troopers sent to Locken have returned, and report that nothing has been seen there of the enemy or of our own troops; and that the telegraph line to Osterode is in working order—one operator being on hand.

The hostile patrol belonged to the 6th Dragoons. It was impossible to talk with the prisoners. Several troopers are now visible on the heights southwest of Brückendorf, who, through field-glasses, are believed to belong to the enemy.

WHAT WILL LIEUTENANT C—— DO—BEARING IN MIND THAT CONDITIONS ARE DIFFERENT FROM TIME OF PEACE, WHERE THERE ARE NO WOUNDED AND NO PRISONERS?

The officer again has his men take cover in the grove near Jagd-see, whence he continues his observations, for the same purpose designating individual men to watch certain districts to the rear. He takes care that no one shows himself unnecessarily and that there is as little moving about as possible. The soldier, as well as the hunter, appreciates the value of immobility, which materially lessens the danger of discovery. The wounded also are brought into the grove. Even the two severely wounded prisoners must submit to this. War is a rough

trade. Human sympathies must give way before the exigencies of the service. The lieutenant sends the sergeant and a trooper to the village to bring back the village president and four reliable men with two well-horsed wagons filled with straw. The village president is intrusted with the care of the three severely wounded men under the protection of the red cross, and the slightly wounded are bound up as well as possible. Then the two slightly wounded and the unwounded prisoner, shackled if necessary, are put in the wagons under guard of the slightly wounded trooper and the four villagers, and are sent to Locken in charge of a reliable unwounded trooper. The officer retains one of the captured horses as an extra mount; the remaining led horses are fastened alongside the draft-horses of the wagons. The man selected as escort for the wagons receives the following instructions:

"You will take the wagons back through Locken to Liebemühl and will take care that the prisoners and this message are delivered to a high-ranking officer of troops marching on this road (the Locken–Liebemühl highway), taking receipt for the men and message. Then you will ride with our wounded trooper, or at least with his horse, to Mohrungen, and will see that the original of the telegram I shall give you reaches headquarters of the 1st Army Corps. Should the wounded be unable to stand the journey, they will be left in some house along the road, taking receipt for them."

The telegram is as follows:

LOCKEN,
5 May 04, ——— a. m.

To the Telegraph Operator, Osterode:

At 4-40 a. m. to-day I encountered 12 men of the hostile 6th Dragoons near Kämmersdorf; and I sent 3 prisoners back over the road to Liebemühl. I was unable to converse with them.

Brückendorf is occupied by hostile troopers. I shall continue towards Jonkendorf. This message should be promptly wired to Army headquarters, whose whereabouts is unknown to me, and to Mohrungen.

C——
Lieutenant 1st Cavalry,
Commanding Patrol.

The message was worded in the same way, except that the last sentance was omitted. The message and telegram are given to the trooper in an unsealed envelope with instructions to familiarize himself with the contents. The telegram is to be wired from Lecken, the trooper again taking possession of the original, after sending, as already stated. The trooper is cautioned that he will be held responsible for the prisoners, and warned to guard the unwounded one with special care. Upon arriving at Mohrungen, he is to make a verbal report of what has happened at Brückendorf and Kämmersdorf.

As soon as the wagons have left, and Lieutenant C—— is satisfied that no danger threatens from Magergut or Pulfnick, he continues on his way with the patrol. Presumably this cannot be until about 6 a. m. The incident described requires considerable time. We should very much like to have matters proceed more rapidly and have Lieutenant C—— resume his march earlier. But we must avoid illusions, although sometimes in reality many things can be hurried. In hostile territory I have known a hay-wagon to be hitched up at night and made ready to transport wounded men in a few minutes. Possibly the officer might limit himself to writing the message and telegram, leaving everything else to the sergeant. But in thinking the matter over we must realize that the sergeant hardly would be in a position to appreciate all the attending circumstances, that it seems most important the telegram should safely reach headquarters at Mohrungen, and that the prisoners should be delivered to someone able to question them. The statements of the prisoners alone might be more valuable than the gain of half an hour in resuming the reconnaissance. The prisoners' departure must be guarded against detection by other hostile patrols that might appear at any moment. And, finally, Lieutenant C—— hesitates, as did Lieutenant F——, to separate himself from the sergeant who must lead the patrol, should any accident happen to the officer.

The telegram simply gives Mohrungen as the second address, not "Headquarters 1st Army Corps," because this would disclose too much should the dispatch fall into the enemy's hands.

Should our wounded trooper be unable to act as guard on the wagon, another trooper probably would have to be sent along. In fact, an escort of two is sufficient only on the supposition that the four villagers will do their duty. The laws of war make it expedient to make believe these civilians are simply to minister to the needs of the wounded. But it may be assumed that these friendly villagers will not allow any prisoner to escape. The officer need have no conscientious scruples about this arrangement. Other nations do not observe the laws of war as strictly as we do. It is too important that the patrol, already reduced to a sergeant and 8 men, be not further weakened.

The detailed account of Lieutenant C——'s conduct after encountering the enemy must only be looked upon as an attempt to call the attention of anyone not familiar with war to the difference between it and peace conditions. In time of peace, opposing patrols on meeting possibly exchange friendly greetings and then proceed with their respective rôles irrespective of each other. Our example shows how serious is the duty of a patrol under such circumstances in time of war. But general rules of conduct cannot be devised. Each case must be decided on its own merits. Everyone must depend on expedients that ingenuity and experience will suggest. Many may be able to devise more suitable measures than those given by me. But in two particulars I wish to defend mine against possible objections—viz.: Why does not Lieutenant C—— turn over all his wounded to the care of the village president of Kämmersdorf? In this case he would have to arrange for the transportation of but one unwounded prisoner, which would have simplified the proceedings and saved time. But undoubtedly more can be

gleaned from the statement of three prisoners cross-questioned separately than from only one, and war experience (all too easily lost in time of peace) shows the great value of such statements for higher commanders. An oft-repeated reminder of Napoleon's to his generals was, "Send me prisoners." The Field Service Regulations also call attention to the importance of prisoners. Our slightly wounded trooper is sent along not only as a guard, but also to preclude the possibility of his falling into the hands of hostile patrols at Kämmersdorf and being questioned by them. Were it possible to move our seriously wounded trooper, he, too, would be sent back.

The transportation must first go to Locken because the telegram is to be sent from there. But it does not go thence over the shortest route (via Eckersdorf) to Mohrungen and our own army corps on account of the length and insecurity of the road. The prisoners are of more importance even than the telegram (in which the number of the hostile regiment is the only important news) and should be promptly brought to a place of safety and where they can be questioned. This suggests the idea of turning them over to the 2d Army Corps advancing via Liebemühl.

Lieutenant C—— will have found out from the inhabitants of Kämmersdorf where the Passarge can be most easily forded. Should such a place be near a road, it will be used not only to avoid a possible ambuscade at the bridge, but also to make his messengers feel independent of the bridge on their way back. Horses trained to swim streams can cross narrow places 2 yards deep without difficulty, and with the rider in the saddle. Of course the rider also must be experienced and must assist the horse; if necessary, dismounting and holding on by the mane.

The patrol succeeds in crossing the Passarge east of Grimmak-see (at the point on the map where the letter *F* of "Forst" is located). The enemy is not found at the bridge. The 2 troopers are called in from Knoll 128, and report that the flee-

ing troopers disappeared in the woods northeast of Pulfnick. At 6.30 a. m. the patrol reaches Knoll 119 south of Labens. From this point the villages of Stenkienen, Windtken, and Schaustern can be seen, as well as the railway nearly to the woods south of Kl. Gemmern. The view is limited by Heights 127, 135, 131, and 128. Nothing is seen in motion anywhere. The inhabitants of Labens report that early in the morning a body of hostile troopers had passed there going towards Kämmersdorf; that nearly an hour ago 3 troopers had returned in haste and had continued towards Windtken; and that no hostile troops were in Schaustern or Windtken during the night.

WHICH WAY WILL LIEUTENANT C—— GO NOW, AND WHAT ARE HIS PLANS CONCERNING THE RAILWAY AHEAD OF HIM?

As the day advances it becomes more likely that larger bodies of hostile cavalry will be met. The three troopers retreating towards Windtken presumably came from there; and, even without this pointer, the roads from Jonkendorf to Ballingen and to Pupkeim and the Jonkendorf–Blankenberg road would be likely lines of approach for the enemy. He probably also will approach along the Alt-Schöneberg–Stenkienen road, but this region is beyond the sphere of Lieutenant C——'s patrol. It is best to observe the Jonkendorf–Ballingen and Jonkendorf–Pupkeim roads from between the two, where several patches of woods offer concealment. The patrol must move in that direction, but without going through Windtken, for this would take us directly towards the enemy and keep us too long in the open. It would be best to ride across country, between Schaustern and Windtken, towards the nearest woods. If the meadows could not be crossed, a road could be followed from Knoll 131 to the woods. Anyone who has actually attempted to take up rails realizes that the patrol on reaching the railway must not be delayed by such effort. And as the patrol has no high explosives, it would be useless to attempt destroying track or switches at Windtken without the assistance

of the railway employees. The officer received no specific instructions to undertake any such work and hesitates to do so on his own responsibility, because it seems to him very unlikely that the enemy will use this part of the track. For the present this district may be included in the enemy's field of operations, but it may soon belong to that of our own army.

But the destruction of the telegraph line is a different question. According to the German Field Service Regulations, Lieutenant C——'s right to do so is somewhat problematical, as only by a forced construction can he be looked upon as an independent commander. But he knows that the station at Brückendorf must have been surprised by the enemy, for the operator did not report the latter's approach nor his (the operator's) intention to discontinue his office. It is therefore possible that the enemy is using the line to send back his own messages. This might be ascertained at Windtken. But the officer does not want to visit this place. A strict and conservative interpretation of the Regulations would result in Lieutenant C——'s deciding not to molest the telegraph line. Thus he would assume no responsibilities and possibly avoid the unpleasantness of an explanation, considering that his instructions do not indicate that he is to attempt any demolitions. But Lieutenant C——, as he already has demonstrated, is a man who does not fear to assume responsibility and who remembers the splendid words of the introduction to the Field Service Regulations, which are that "every officer must unhesitatingly act to the best of his ability in every contingency, even without waiting for orders concerning details." He also remembers the concluding remarks, which are: "Even the lowest soldier must bear in mind that he will be more severely dealt with for an omission or neglect than for any error in choice of means." While superior authority sometimes might be able to indicate the points in advance where demolitions should be attempted, still it is impossible to give instructions

to every patrol concerning railways and telegraph lines that may be encountered.

If nothing but the wire is cut, there will be but little work to subsequently repair the line. But if the wire is strung on high poles, it will be difficult to cut without iron climbers and wire-nippers. The best place to select would be near a section-house. The patrol must not be long delayed by the work as it might be discovered if it remained long in such an exposed position.

At about 7 a. m. the patrol may reach the woods east of Schaustern after having cut the telegraph wire just south of said village with the assistance of some countrymen. The patrol is only about 8 miles from Horn in an air-line, but has actually come about 12½ miles in 4 hours. This apparently is a short distance. The regimental commander at Gr. Hermenau, not understanding the situation, may be very angry at the infrequency of messages from this patrol, particularly because they could be forwarded by wire from Horn. It remains to be seen whether the loss of time that resulted from Lieutenant C——'s detour via Kämmersdorf and skirmish will be made good in other ways.

Bearing the following in mind, let us glance back at Troop A, which at 6.50 a. m. left Herzogswalde for Reichenthal. Captain F—— left Corporal M—— and 6 troopers at the Teufelsberg (it might be added that the corporal made arrangements at the southern exit of Herzogswalde to have messengers directed to his new station); 3 were sent to Näglack to observe towards the south; 1 sergeant and 6 troopers were sent to Liebstadt; and Lieutenant F——, with 14 men, was sent via Kallisten towards Guttstadt. Of the latter patrol, 1 trooper has returned with a message and has rejoined the troop. Then, 2 men were left at Mohrungen, 3 at Gr. Hermenau, and 1 man was sent back from each of these two places with a message

for the regimental commander. Therefore the captain has 1 officer and 63 men left. Nothing is known of Lieutenant F——, except that about 5 a. m. he rode past 12 hostile troopers near Lettau (of these nothing has since been heard), and that he sent a lance corporal to Sackstein, but the latter's message has not yet been received.

At 7.05 a. m. the captain reaches Knoll 153 near Wuchsnig with his point, and looks about. The houses of Pittehnen are visible, but no details. No enemy is visible on the Liebstadt–Pittehnen highway, nor in the intervening country. Two horsemen are visible on Knoll 110 near Elditten, but it cannot be determined whether they are friend or foe. The flanking-patrol is galloping in from Gr. Trukainen. A small detachment, apparently hostile, is seen galloping alongside the highway from the south towards Näglack. The captain sends a non-commissioned officer and 3 troopers on reconnaissance to Pittehnen, and has the troop halt under cover in rear of the hill, with the idea of surprising the hostile troopers as soon as they should approach near enough. At the same time he sends several troopers via Gr. Prägsden (where they are concealed from the south) to the Passarge to examine the river and look for fords. It is true that he was told in Herzogswalde that there are no fords in the vicinity, but he wants to be sure about it. The hostile detachment, consisting of 10 men, halts between Näglack and Banners. The captain then orders his leading platoon to drive the enemy away and to advance far enough to obtain a view of the country about Lettau–Waltersdorf and towards Sackstein. The hostile troopers retreat towards Alt-Menzels and disappear in the woods. The platoon follows as far as a hill south of Alt-Menzels and sends a patrol to Sackstein and another to Height 148 near the highway.

At 7.45 the platoon returns via Näglack. The platoon commander reports that the hostile detachment crossed the Passarge at Sackstein. The pursuing patrol was ordered by

the platoon commander to remain at Sackstein for the present and continue watching the enemy. Nothing suspicious was seen at Waltersdorf or Lettau nor on the part of the highway visible south of Waltersdorf. The inhabitants of Näglack stated that at 5 a. m. to-day 3 friendly (blue) troopers passed through the village and inquired the way to Sackstein. Impatient at the time lost through the hostile patrol, the captain, looking backwards to see if the regiment has yet come in sight, trots towards Reichenthal without further delay, going north of the road through the low ground, to be covered from view as much as possible. He depends on Corporal M——, at Teufelsberg, discovering his march and notifying the colonel about it, as well as about the encounter with the hostile patrol. The orders of the patrol at Sackstein are not changed; and 2 troopers are again sent towards Näglack to keep on the lookout to the south.

Even before reaching Reichenthal, the captain recognizes the situation at Pittehnen. Shots are fired from the heights on the right bank of the Passarge which are answered from the houses of the hamlet. A hostile troop of cavalry is visible on the Pittehnen–Eldittten highway, having just halted about halfway between these two points. A part of the troop dismounts and advances towards Pittehnen. East of Eldittten the highway is visible as far as the woods between this point and Wolfsdorf, but nothing is visible on it. The scouts sent to the Passarge have reported that the stream is not fordable and that the meadows will not support the weight of a horse. The inhabitants of Gr. Prägsden have informed the captain that between Sackstein and Pittehnen there is neither ford nor bridge, but that there are two fords at Kalkstein.

WHAT DOES THE CAPTAIN DECIDE TO DO AT 8 A. M. AT REICHENTHAL?

(It must be remembered that Lieutenant F——'s messages of 6.30 from Heiligenthal and 7.35 from Komalmen have not yet been received.)

If the captain at Herzogswalde or Wuchsnig had received word of Lieutenant P—— from Heiligenthal and of the lance corporal from Sackstein, he might have decided to advance via Sackstein, and, driving back the hostile patrol, would now be on the right bank of the Passarge; whereas this bothersome stream, like an impenetrable wall, still precludes an extended view, while the regiment is already on the captain's heels. Without knowing what Lieutenant F—— in the meantime had discovered, it would have been justifiable for the captain to deviate from the chosen route of Pittehnen–Guttstadt only in case the hostile patrol from Näglack had been backed up by larger bodies. At the same time the captain, notwithstanding his impatience, could not continue his march until he had shaken off this patrol and obtained a view behind it. Now the hostile troop at Elditten forms a new obstacle. The captain may correctly guess the colonel's displeasure, who will have expected better results from the former's discretion and spirit of enterprise. How often such mishaps mar the plans of the most active and experienced leader! Had it not been for the delay caused by the hostile patrol, the captain long ago would have been at Elditten—possibly victor over the hostile troop—and would have had an extended view of the road to Guttstadt. When the captain learns what considerations induced Lieutenant F—— to desist from accepting battle at Lettau, he may exclaim: "Would that my dear lieutenant had remembered less of the Regulations!"

But how shall the captain adjust himself to the new situation?

It will not do to turn back from Reichenthal and go to Sackstein. This would open the way for the hostile troop via Pittehnen and enable it promptly to ferret out our regiment and send back welcome news. And, besides, it might not be possible to ride to Sackstein unobserved. It seems equally inadvisable and impracticable to attempt fording the Passarge

at Kalkstein. If we are not to lose more time by waiting, there is nothing to be done but to forcibly break through at Pittehnen. If the hostile troop waits dismounted on the right bank of the Passarge, Captain E—— also must dismount and drive the enemy away by dismounted fire action and capture the bridge. Of course fire-superiority cannot be obtained by numbers, but by superior markmanship. Would a company of blue infantry hesitate in the face of a hostile company? Why should it be different with troop against troop than with company against company?

It would be advantageous if the troop could reach the vicinity of Pittehnen under cover, where Height 108 apparently offers a commanding position. We might succeed in this by circling to the west and crossing the highway at the point *P* of "Pittehnen." It will be necessary to use combat patrols, particularly towards Kalkstein; unfortunately, this reduces the fighting strength. But doubtless the hostile troop also has weakened itself by using similar patrols. We must consider whether the led horses should be kept west of Height 108, and what amount of mobility is desired of them. If the horses are immobile,* the men after capturing the bridge on foot would have to return for their horses; while, if mobile, they can be brought up to the riders. But in the latter case from one-fourth to one-half of the men must remain with the horses, which greatly reduces the number of men on the firing-line. Quick results are to be expected only when not a man is missing. If the troop is victorious, there will be time and opportunity to mount —this may take place by platoon. If the troop does not succeed, the men can quickly fall back on their horses. Neither must there be a mounted reserve, though one is ordinarily prescribed—the stream, which protects from any sudden hostile mounted attack, justifies the omission.

*All the horses of a platoon linked together in a circle and watched by a single horse-holder. (Wagner's "Organization and Tactics.")

Presumably the hostile troop dismounted simply to clear the way to Pittehnen. The enemy probably will remount and cross the Passarge as soon as he has driven the blue patrol out of Pittehnen. But the captain does not want to wait for this. It is quite possible that his troop has already been discovered by the enemy; for example, from Knoll 110 south of Eldittten. If the enemy simply wishes to block the way at Pittehnen, he can all the better make preparations for this the longer he is left undisturbed. The captain also rejects the idea of asking for assistance from the colonel, by the time this could arrive the enemy also may have been reinforced; and it is doubtful if the colonel would grant the request. Asking for reinforce-forcements is very properly frowned upon in the (German) Army. If a detachment positively is not strong enough to do what is required of it, the situation and present intentions of its commander are reported to higher authority, and it is left for him to decide whether reinforcements shall be sent or not.

Deciding to act at once, the captain sends a non-commissioned officer and 4 troopers via Blumen towards Kalkstein, as a protection against the north and northwest, and conducts the troop along depressions of ground to the west of Reichenthal, constantly keeping an eye on the enemy. When he, with his troop close behind him, and so far apparently not seen by the enemy, reaches the Reichenthal–Blumen road, he sees Lieutenant B——'s patrol hastily riding baek from Pittehnen on the road towards Liebstadt, and sees the hostile troop mount; whereupon the following happens: He (the captain) lets the hostile main body, which is following Lieutenant B—— in some disorder, get out of Pittehnen about 1,000 yards, and then charges it in flank. He has nearly 1,000 yards to go, but it is down hill and for a short time the terrain still conceals him.

But fortune only half-way favors the captain. The enemy discovers the attack too soon, and gives way to the north. The

troop, advancing at a gallop, forces the enemy to separate and retreat hastily. A few hostile troopers escape into the woods and a group rides around the southern border of the same, while the greater part turns north towards Klogehnen. The captain follows the latter with his troop, only detaching half of the left platoon to the left around the woods. He sends an officer and 6 troopers towards Pittehnen to protect the right flank.

The horses are tired out by the time they reach Height 94 southeast of Klogehnen. The captain is convinced that he cannot overtake the enemy, who is continuing his flight in disorder towards Gillwalde and Stollen. He orders Sergeant K—— and 6 troopers to follow and keep touch with the enemy. As he assembles the troop the group detached from the left flank rejoins on the Polkehnen–Klogehnen road. The leader reports that he sent 3 troopers to follow the hostile troopers fleeing towards Stollen. The combat-patrols join the troop, as well as Lieutenant B—— and 6 men of Troop B, who were driven from Pittehnen (1 man fell in the engagement at the Passarge bridge). Three of the hostile troopers, who retreated into the woods, have been captured. One of our troopers is able to talk with them, and the captain thus learns that he had encountered Troop No. 2, 5th Dragoons, which left Heilsberg early this morning, having spent the night there with the entire regiment. The prisoners can neither describe the road over which they came to-day nor tell where they were night before last, or where their regiment is, which they have not seen to-day. Nor can anything else of importance be found out from them.

The troop is assembled by 8.35 a. m. Of the detached troopers, 5 have reported who were left at Mohrungen and Gr. Hermenau and were relieved by others from the regiment, and the 2 messengers sent to the regimental commander. They report that the regiment arrived at Mohrungen at about 6.20

a. m., and at Gr. Hermenau shortly after 7 a. m. They bring no orders or information. Four horses were captured by the troop, which, aside from two horses seriously hurt by falling, has had no losses.

About this time a regimental staff officer, accompanied by a trooper, arrives and states that the advance guard of the regiment arrived at Herzogswalde at 8 a. m., where the regimental commander expects to halt for a while. The troop commander is to report how matters are progressing with him. The staff officer is unable to definitely answer the captain's inquiries concerning messages received by the regimental commander or the latter's intentions. He simply remembers to have heard that a message had been received from Lieutenant F——. The enemy was not visible from Herzogswalde, and while the staff officer *en route* through Reichenthal saw what had happened in the troop, he saw nothing else concerning the enemy.

The officer who with 6 troopers was sent to protect the right flank of the troop during the pursuit is visible on the right bank of the Passarge at the bend of the highway northeast of Pittehnen.

What are Captain E——'s decisions and arrangements south of Klogehnen about 8.35 a. m.?

Should the captain follow the retreating troop, he would drive it farther away and prevent its obtaining any insight into the movements of the regiment. But in this event he would abandon his reconnaissance towards Guttstadt. Both of these enterprises cannot be carried out together. If the pursuit is continued to the north, only small patrols can be sent towards Guttstadt, which would not assure an energetic and profitable reconnaissance. But, taking all things into consideration, the latter direction is of greater importance than the one towards Wormditt. Hostile infantry surely will not be encountered

towards Wormditt. If the 5th Dragoons turned that way from Heilsberg, the road through Guttstadt may be all the more accessible for operations against the main columns of the enemy, and the troop may yet be able to obtain timely information about them. If larger bodies of hostile cavalry are approaching from Guttstadt, a further pursuit of the defeated troop would be useless.

There is an objection to a continued advance to the east. Soon after crossing the Passarge, communication with the regiment will become precarious, unless the latter should follow on the same road. The captain does not know whether this will happen or not. Should the regiment take a different direction, the colonel might want to have the bridge at Pittehnen held. Therefore the captain might conclude to halt until he had asked for further orders, as he is but 4½ to 5 miles from the regiment. He can get word in an hour if the regiment has remained at Herzogswalde. During this time he can cover the regiment from the hostile troop that retreated to the north as well as from Guttstadt; and he can begin further reconnaissance in the latter direction by sending out new patrols. Unconsciously the mental lassitude, observed by those experienced in war to follow even successful engagements, works in favor of the latter plan. The over-taxed nerves clamor for their rights, and it takes a strong will-power to overcome this condition.

To ask for orders of a superior and await his reply is a doubtful expedient for an enterprising and self-reliant man. Often enough he had urged his subordinates to independent action and self-help, and in many instances had shown them what a mistake it was to ask for orders. Is it possible that here we have the exception that authorizes or calls for a departure from the rule? The captain tries to imagine himself in the colonel's position when the latter received the request. At the most he will communicate the plans he has formed in the mean-

time, but he hardly will be able to give minute instructions as to the future conduct of the troop. He knows less about the situation at Pittehnen than the captain, and does not know what information has been received there since the request was made, or that may be received during the next half-hour. Very likely, therefore, he will refer the captain to his general instructions, and emphatically call his attention to the fact that all details are left exclusively to him. Possibly the request will shake the colonel's confidence in the captain, and induce the former against his will to give detailed instructions that later seem impracticable and only place the captain in a worse predicament than before.

To be sure, we here have to deal with a sin of omission on the part of the colonel or his adjutant; namely, that the staff officer sent to Pittehnen was not carefully informed about the information that had been received at regimental headquarters, or the colonel's further plans—an error with which also the staff officer himself is to be blamed. Had the latter been able to inform the captain concerning the situation, the latter would have been able to decide more readily. But no matter how much such mistakes are to be regretted, and how much damage they may do, they always will happen. Every leader must be prepared for them and know how to deal with them.

If the captain has been at all in doubt, he will be brought to a decision by the fact that, in case the regiment in the meantime should have left Herzogswalde, he might have to wait hours for an answer, and that in any event valuable time again would have been lost. Should the regiment follow via Pittehnen, communication is not threatened; should it advance via Sackstein or Kallisten, the troop in going towards Guttstadt would more quickly regain communication than if it remained at Pittehnen. If, contrary to all expectation, the regiment should turn towards Wormditt, as might happen if positive and conclusive information should demand it, the troop

is all the more obliged to reconnoiter towards Guttstadt. Finally, the message to be sent by the staff officer to the colonel will enable the latter to make any arrangements necessary to further the troop's action.

But the troop commander will not let the staff officer go until the latter fully understands the former's plans and arrangements.

The most important thing is the route to be taken by the troop. The smooth highway favors speed and apparently affords a good view. But it has already been mentioned that reconnoitering parties as far as possible should avoid the highways. It is fair to assume that the hostile troop encountered near Pittehnen will be followed by a larger body of cavalry, and this can be more readily discovered and its strength estimated from the country to one side of the road than by a direct encounter with it on the road. The vigilance of point and flankers may guard against surprise, but they are not suited for careful and thorough reconnaissance work, because they are forced to defend themselves against hostile patrols that are striving to prevent observation. The enemy's eyes, the same as our own, most carefully scan the highway and would discover our troop all too soon. But the best way to observe the enemy is from a place of concealment. The highway can be farther and better overlooked from the heights to the south than to the north of it and the southern route will more promptly establish communication through Sackstein, whence no further information has been received.

Therefore the captain decides at first to ride to Kleinefeld, which he hopes to reach unobserved. But before beginning his march he must attend to several things.

What shall be done with the prisoners? As the troop had an interpreter, it is unlikely that more will be found out from them at regimental headquarters than has already been learned. The regimental staff will hardly have time to bother with them,

and, besides, it is uncertain where the regiment will be found. Therefore it seems best to send them back to the army corps.

Sergeant L——'s patrol is still at Liebstadt. He can send back the prisoners through Gr. Hermenau to Mohrungen by means of the police or citizens assisted by a trooper. They will be taken to Liebstadt in a wagon from Pittehnen, escorted by 3 troopers, who are promptly to return to Pittehnen and report to Corporal P——. These troopers will inform the non-commissioned officer at Liebstadt of the situation and the captain's further intentions. Corporal P—— is informed of this, and is ordered to remain at Pittehnen with 3 troopers as a connecting-post and to secure the way across the Passarge. This detail includes the two men whose horses were injured in the pursuit. The captured horses are turned over to Corporal P—— as remounts for the two men. The 3 troopers detailed to escort the prisoners, upon returning, will form part of the connecting-post. Corporal P—— is cautioned that all messages of importance for corps headquarters must be sent to Mohrungen, particularly if communication with the regiment becomes uncertain. For this purpose it is advisable to use the telegraph from Liebstadt.

It is not the great distance, but the unsafe road, that leads to the establishment of a post at the Passarge bridge. Later in the day it may prove useful as a means of communication with the army corps.

Finally, instructions must be sent Sergeant K——, who was ordered to follow the hostile troop, and the message to be taken back by the staff officer must be written.

IT IS RECOMMENDED THAT BOTH THESE MESSAGES BE WRITTEN IN FULL, AND, TO SHOW HOW LONG IT TAKES, THAT THE WRITING BE TIMED.

PITTEHEN,
5 May, 8-40 a. m.

To Sergeant K——:

Troop A will continue its advance towards Guttstadt via Kleinefeld. You will keep touch with the defeated troop and protect the regiment to-

wards the north. Messages should be sent to the regiment through Sergeant L——, at Liebstadt, or Corporal P——, at Pittehnen. At 8 a. m. the regiment was at Herzogswalde. The 3 troopers that the chief of the 3d platoon sent to follow the enemy towards Stollen are placed under your orders. The bearer of this message should return to the connecting-post at Pittehnen.

E——,
Captain.

PITTEHNEN,
5 May, 8-55 a. m.

To Adjutant, 1st Cavalry:

After being delayed by a group of hostile troopers at Näglack, this troop arrived at Reichenthal at about 8 a. m. and attacked a hostile troop that was advancing from Pittehnen on the highway towards Blumen. The enemy escaped to the north and was pursued as far as Klogehnen. He has disappeared towards Stollen. Sergeant K—— and 9 troopers are following to keep touch with the enemy and protect the regiment towards the north. Three prisoners state that the enemy consisted of Troop No. 2, 5th Dragoons, which left Heilsberg early this morning, where it had passed the night with the entire regiment. The prisoners neither can describe the route they followed to-day, nor tell where they were night before last, or where their regiment, which they have not seen to-day, now is. They apparently know nothing else of importance. I am sending the prisoners to Mohrungen via Liebstadt, and shall advance via Kleinefeld towards Guttstadt. A connecting-post, under Corporal P——, is left at Pittehnen, to which point please send information concerning future movement of the regiment and of any important messages received. I shall attempt to establish communication with the regiment through Sackstein. I have not yet received any word from the right bank of the Passarge. Below Sackstein the stream can be crossed only on bridges, excepting at Kalkstein, where there are said to be two fords.

L——,
Captain.

It took me about 5 minutes to write the instructions to Sergeant K——, and the message to the adjutant took nearly 15 minutes. Some may be able to do it in less time. It is not so much the actual writing, as a careful consideration of the subject-matter, that takes time. In the field, additional time will be consumed by all sorts of interruptions and the observation of terrain and enemy. All this must be borne in mind by both the sender and receiver. It is desirable to diminish the time required as much as possible. But can this best be done by shortening the wording? Searching for the shortest form of expression might take longer than rapidly writing several

longer sentences, and might result in ambiguities similar to those often arising from the so-called telegraphic style. It is most appropriate to say, "Please excuse this long letter; I haven't time to write a shorter one." It is hardly possible to omit anything contained in the foregoing messages.

But the question arises whether the captain might not have saved the 15 valuable minutes taken in writing the second message, by letting the staff officer carry back a verbal report. As we here have an officer, and above all, the colonel's selected staff officer, to take back word, the captain certainly would be authorized in sending a verbal message to his superior. No one would blame the captain if he considered such verbal message sufficient. But his confidence in the staff officer may have been somewhat shaken by the latter's imperfect knowledge of the situation, for a reliable and energetic officer would not have left Herzogswalde in such blissful ignorance. The captain is the responsible party, and he would be blamed for any misunderstanding caused by inaccurate transmission of the message. He knows what a valuable document a written message is. Possibly he already has learned by experience that such a document may serve as a protection against unmerited censure; and, even if this consideration would not be the motive for a high-minded man's course of action, still, the thought of his reputation as a careful commander justified his course. The troop cannot start at once; it must first let the point and flankers gain the necessary lead. This allows some time in which to restore order after the pursuit, and enables horses and men to somewhat recover from its effects. It also affords some time for writing the message which is dictated to two men so that a copy can be retained by the first sergeant.

While the latter forms the troop under cover near Pittehnen, the captain has an opportunity to commend his men for their meritorious conduct, and to order the horses to be watered, before joining the officer whom he has intrusted with

keeping watch towards Guttstadt. He finds the latter and the 6 troopers at the bend of the road northeast of Pittehnen. The captain took along Lieutenant B—— and his 6 men of Troop B, as well as 2 non-commissioned officers and 10 men of his own troop, to promptly make the necessary arrangements on the right bank of the Passarge.

The officer, Lieutenant S——, reports that two hostile troopers were visible for a few minutes on Height 110 south of Elditten; but that he had seen nothing else of the enemy. The captain scans the country, excepting a number of depressions, as far north as Klogehnen, and to Height 111 north of Schwenkitten, then from the grove on the road to Dittrichsdorf beyond Height 111 to the border of the woods on the slope of Hasenberg,* as far as half-way between Elditten and Kleinefeld and as far as Height 110 south of Elditten. There is nothing suspicious to be seen anywhere, and the occupants of the neighboring farm do not know anything more than what the captain already has learned. To the rear the view extends as far as the highway at Gr. Prägsden and Wuchsnig. There is nothing to be seen of the regiment.

The captain requests the staff officer to listen to his next arrangements and then to rapidly ride back to the colonel.

WHAT ARRANGEMENTS DOES CAPTAIN E—— MAKE AT THE BEND OF THE HIGHWAY NORTHEAST OF PITTEHNEN?

So far the patrols in front of the troop, whose arc had been partly penetrated by the hostile troop, have been detained by the Passarge. The assembled blue troop, after driving the enemy away, has entered the outer zone of the reconnoitering screen and its own safety as well as a continuation of the reconnaissance calls for a rearrangement of the service in its front. We can resort to the regulation plan of sending out patrols in fan-shape order: one patrol via Arnsdorf–Freymarkt towards

*"Hasen B." on map.

Schmolainen, one along the Wolfsdorf–Guttstadt highway, one via Kleinefeld–Warlack towards Glottau, and possibly a fifth via Hohenfeld–Waltersmühl towards Heiligenthal–Rosengarth. These would form the orthodox screen and would sufficiently protect the body of the troop, following at some distance, from surprise. But on closer examination of existing conditions we see that such a typical formation is not suited to this case.

Even in figuring on a minimum strength for these patrols, we hardly would have each one consist of less than a leader and 5 men; taking 30 men in all. This would reduce the strength of the main body of the troop to an unwarranted extent. But even patrols of 6 men, if the distance from their support increases, cannot perform their duty properly and will become helpless as soon as they have sent back two or three messages. And, as for sending these messages by 2 men each, as should be done in close proximity to the enemy, this is entirely out of the question.

But at least the patrol sent via Arnsdorf–Freymarkt towards Heilsberg would have to be considerably stronger, as it probably could not return to-day. If the captain does not wish to see his command melt away in small detachments, he must adopt a different system.

Of what use is the typical net-work of small patrols whose threads cross all avenues leading towards the enemy? Practically only as a means of protection. These small groups accomplish relatively little in the way of obtaining information—the hostile screen will see to this. Even if the latter is raised a little here and there, thus affording the patrols an extended glimpse, it will seldom happen that the messenger sent back will bring the information obtained on time.

On page 35 mention has already been made of the small value of reconnaissance by junior non-commissioned officers without map or field-glasses, and without comprehensive military judgment.

The united troop is able to tear the hostile screen, and the captain, who, with his practiced eye is able to judge the complete situation, exposes the enemy's cards if he personally arrives on the spot where there is something to be seen. It is a very different matter if he can report, "I have seen," than if he must repeat the incomplete and frequently contradictory reports of his non-commissioned officers. It therefore seems best that the captain personally undertake the reconnaissance at the head of his troop south of the Pittehnen–Guttstadt highway, and for the same purpose intrusting an officer with a large patrol north of this highway. The men detailed to protect the march of the troop will confine themselves to narrow limits and, like the latter, will try as far as possible to remain unseen. It is unnecessary to send a patrol along the highway, as this is visible from the road through Kleinefeld, and would unnecessarily attract the enemy's attention.

In many other cases a similar method to the foregoing might be applicable, but it would be folly to think of deducing a general rule from it. More valuable than the recognition of the suitability of the foregoing scheme is this: that it is more easy to ride on the road of careful thought and conformity than in the ruts of conventionality.

The captain orders Lieutenant S—— to take 1 non-commissioned officer and 8 men and ride ahead to Elditten, to observe from that point—using the church-tower for this purpose. He intends to follow with the troop and go to Kleinefeld under cover alongside the road, with a point 1,000 to 1,500 yards in advance. A flanking patrol will be sent via Hohenfeld to keep the Passarge valley and its left bank under observation and permit of visual communication with the regiment, should it advance via Pittehnen of Sackstein.

To Lieutenant B——, who, with his 6 troopers, has gone a comparatively short distance to-day, the captain assigns 1

non-commissioned officer and 8 men of his own troop, and sends him to reconnoiter north of the Guttstadt highway.

WHAT INSTRUCTIONS DOES THE CAPTAIN GIVE TO LIEUTENANT B——?

"We have learned from prisoners that during the past night the 5th Dragoons was at Heilsberg. We have not found out whence the regiment came, where it is to-day, or to what larger unit it belongs. The hostile cavalry might advance from Heilsberg towards Wormditt or Liebstadt, or via Guttstadt. It is important that this point be cleared up for our colonel, but it is more important that corps headquarters find out something about the infantry columns following, over what roads they are advancing, and where the heads of columns are. I am going towards Guttstadt with the troop, and for the present shall remain south of the highway. You will reconnoiter the country north to include the Wormditt–Freymarkt–Heilsberg highway and east to the Alle. If you have time, you will also observe the Guttstadt–Heilsberg road, which you may be able to do by going via Sperlings to Liewenberg. Friendly inhabitants were unable to give any information west of the Passarge. Now that hostile advance patrols have passed by, more may be learned by questioning the inhabitants. If you find the road at Freymarkt and the Alle crossings free of the enemy, you must report the fact—you yourself must decide when your patrol shall return. The prospect of discovering something of importance and the condition of your horses may decide you to pass the night in an advanced village. I wish to remind you that it is not important to investigate details, but that you should find out the general situation as conclusively as possible.

"Send your messages to the relay station at Pittehnen. Should this have been discontinued, or the road be barred, you must not search for the troop or regiment, but the mes-

sengers should endeavor to forward messages to corps headquarters at Mohrungen; for this purpose reach Liebstadt and thence wire to Mohrungen. Sergeant L—— and 6 men are at Liebstadt. It is reported that there are two fords across the Passarge at Kalkstein."

These might be the verbal instructions for Lieutenant B——, and presumably they are longer than those composed by the majority of my readers. Therefore, referring to what I have said on page 19 concerning the "telegraphic style," and to my draught of previous messages, I wish further to justify the above instructions.

Very properly stress is laid on military brevity. But whoever has learned by experience, as I have, will admit that brevity may be overdone and become a useless formula. How often mistakes have arisen from short commands even on the drill-ground, where a few clear sentences would have explained matters. Whoever reads the orders and instructions of great commanders, handed down to us in history, sometimes is surprised at their minuteness, deviating very much from the scant style of our maneuvers and map problems. When the Prusso-German Army began its last great war, a lack of skill and uncertainty in composing orders became manifest in many cases, which, as soon as recognized, was earnestly combated and remedied by careful instruction. Our Army Regulations devoted much attention to this important point; and in the General Staff and the military schools, as well as with troops, strenuous efforts were made to remedy the defects. Therefore great progress has been made in the art of issuing orders in the German Army. Even the candidate for a commission is required to understand it on his entrance examination, and on maneuvers the wording of orders takes up much of the critique.

The progress attained by years of study is unmistakable. But on many occasions I have found out that this art is merely a matter of form, that many points contained in some orders

based upon the prescribed models were superfluous and that other points were missing that happen not to be mentioned in these models. I wish to call attention to the provisions of the Field Service Regulations relating to Letters of Instructions,* in place of orders, a form that is but little used any more, but which I believe should be used not only with larger commands, but also with smaller ones—particularly in reconnaissance duty and verbal communications in general.

An ordinary conversational form often is clearer and more easily understood than the brief order-form, which, besides, deters a subordinate from asking for elucidation or further explanation, and which seldom affords insight into the situation or the commander's plans. Whoever has seen General von Goeben, one of our most prominent commanders, in trying times, will never forget the friendly and instructive manner in which he gave his instructions and orders, thus helping his subordinates to a successful coöperation. The general had the reputation of being taciturn, but his orders in time of war—particularly his verbal ones—often assumed the form of instructions without losing definiteness of character.

Particularly Goeben's example called my attention to this point, and I must caution you not to sacrifice necessary details to brevity and terseness.

It is possible that my draft of instructions to Lieutenant B——, if included in a report on a maneuver, or delivered before an inspector, would be unfavorably criticised. Instructions something like the following would be more favorably received:

"The troop will advance south of the Pittehnen–Guttstadt highway; you will reconnoiter north of the same towards Freymarkt–Heilsberg."

I admit that this form would do if Lieutenant B—— were a specially capable officer, who looked out for everything else himself; who realized how important it is to get a glimpse be-

*See par. 29, F. S. R.

hind the hostile cavalry, to find the infantry columns and the crossings of the Alle, to get a view of the Heilsberg–Guttstadt highway, to report to corps headquarters, to remain out all night if necessary, to question inhabitants, and to make use of the telegraph line from Liebstadt. But if the captain is not absolutely certain of such exceptional intelligence in his subordinates, it would be better for him to impart some of his own intelligence and knowledge. Besides, coöperation would be more likely to result. The captain by all means must tell the officer what he found out from the prisoners, and he ought to say more about the situation in general than is contained in my draft, were it not fair to assume that Lieutenant B—— already had this information from the colonel, who had sent him ahead. Neither would it do to omit instructions concerning the messengers' route.

I am not in favor of instructions covering all sorts of possible contingencies; but the omission of a useful hint is more questionable than the addition of a sentence that on close inspection proves to be superfluous. Excessive brevity as easily causes doubt as verbosity.

But the abbreviated form of instructions, with addition of messengers' route, may do for the lieutenant's note-book and the first sergeant's letter-book.

After discussing a number of important events at the extreme front of the cavalry reconnoitering parties, we must return to regimental headquarters; but in doing so, you must try to forget in your deliberations and discussions what has been said as having happened at the front, very much as you would a vivid and impressive dream. To help produce this effect, let us assume for the time being that entirely different reports concerning the enemy and our own patrols have been received.

Then it is recommended that pages 9 to 15 be re-read to refresh the memory.

During the night (May 4th–5th) the messages received by Captain E—— from Elbing also came to regimental headquarters; viz., that telegraphic communication had been interrupted with Königsberg and Pr. Eylau since early on May 4th and with Landsberg since noon the same day; that hostile troopers had seen seen at the latter place; that the telegraph line was destroyed between Mehlsack and Wormditt on the evening of May 4th; and that the enemy had not appeared at Mehlsack itself as late as 2 a. m. May 5th. The following telegram is received from corps headquarters:

The cavalry of the 1st Division and at least one troop from the 2d Division will reconnoiter via Pfeilings towards Jonkendorf–Münsterberg on the 5th inst.

Colonel A—— was not awakened on account of these messages. They were not shown him until after 4 a. m., when the following was received:

DRENKEN,
5 May, 3-30 a. m.

Shall leave at 5 a. m. with 3 troops to reconnoiter via Pfeilings towards Jonkendorf–Münsterberg.

D——,
Major 3d Cavalry.

The regimental commander considers it desirable to have a personal interview with the major, whose message should be acknowledged. He therefore sends back word by the returning messenger asking the major to overtake him on the road to Mohrungen.

There are no further arrangements necessary at this time (about 4 a. m.); still, corps headquarters is informed by wire that there is no change in the situation and that the regiment will start on time. A messenger would not have been sent for this purpose, but, the telegraph line being convenient, this report of minor importance is sent by wire. It is not without

value for corps headquarters to learn that nothing has happened to interfere with the execution of existing orders.

Before starting, the regimental adjutant reports that Lieutenant F—— had wired from Gr. Hermenau at 4 a. m., asking to be informed by wire of any further information received since his departure and stating that he had neither seen nor heard anything of the enemy. So far telegraphic communication with Mohrungen and Liebstadt as well as with Horn has not been interrupted. Upon inquiry it has been learned that Lieutenant C—— left the latter station at 3 a. m. Troop A, 1st Cavalry, left Maldeuten at 4 a. m., as ordered.

On his way to Gr. Wilmsdorf the colonel and his staff ride past the different troops which already have largely joined the column and dismounted upon arriving at their respective places, as is always done without orders upon halting, unless it be necessary to be in immediate readiness for action. Promptly at 5 a. m. Colonel A—— arrives at Gr. Wilmsdorf. Unless unavoidable, he purposely tries never to arrive before the time named by himself, so as to avoid even the suspicion of being nervous or perturbed, and not to interfere with the routine duties of his staff. The squadron commanders report at Gr. Wilmsdorf, stating that nothing of importance has happened among the troops. Troop C, Captain W—— commanding, has been sent forward half way to Gr. Bestendorf to protect the regiment while assembling. A platoon of Troop D is at the railway station of Maldeuten for the same purpose. This station is occupied by a platoon of the organized militia.

WHAT ARRANGEMENTS DOES COLONEL A—— MAKE AT 5 A. M.?

The German Field Service Regulations say practically nothing about the manner in which cavalry divisions, or subdivisions of the same, shall protect their march; one is tempted to add, "fortunately." Here, where everything depends on

circumstances, every regulation, no matter how carefully worded, would be a detriment. But, in spite of the notable absence of instructions, there is hardly a cavalry officer who would be helpless in the face of the problem. Most of them certainly would devise suitable arrangements, even though differing from each other. And yet the protection of the march of cavalry is by no means easier or simpler than that of a force of all arms, whose work in this particular to a great extent is performed by the cavalry sent in advance. We might almost believe that the detailed and comprehensive instructions of our Field Service Regulations, for the protection of the march of the main columns of an army, unconsciously are based on a long-since-forgotten system of peace training and on a conviction of its being innocuous. My contemporaries may remember the careful method of examining localities along the line of march, and which no body of troops was allowed to pass until point and flankers had sent back word that everything was all right. This method was conscientiously followed for a whole day by the division to which I belonged in the campaign of 1866. We had started at 3 a. m. and at 6 p. m. we reached our destination, 12 miles away. But, beginning with the following morning, no one ever thought of the carefully practiced rule which nevertheless has been partly resurrected in long paragraphs of the Field Service Regulations, to be sure in a purified and better form, so that following it cannot result in similar disadvantages. But it would be a decided advantage if the present regulations were condensed and all figures and measurements were omitted; for no one can depend on these, but everyone is forced to make arrangements on his own judgment and responsibility in accordance with the requirements of each case. As the (German) Field Service Regulations require that cavalry must adopt such formation of column and means of protection as may be demanded by circumstances, commanders of infantry would also be able to do this if only the fundamental principles

of the service of security are established and peace training assures an intelligent and certain execution of the same. Later I shall return to this subject, but think it appropriate to refer to the subject here so as to call the cavalry leader's attention to the value of the independence authorized by the Regulations.

The measures adopted to obtain information also help in the matter of security or protection, but are not sufficient. The troops must not be surprised by the enemy and must extend a second and closer series of tentacles, finer meshed and more reliable, to serve as a second network of reconnoitering bodies. The subdivisions of this system will differ according to the country and circumstances, and require a more permanent organization and supervision.

As the commander of a larger body of troops cannot personally attend to the details of this service, he intrusts it to the care of one or more subordinates, and, as it is not a question of independent action, and to avoid unnecessary expenditure of energy, the detachments for this purpose are made as small as circumstances will permit.

Colonel A—— wishes to intrust Troop C, which already is in front, with the duty of protecting the march of the regiment. But the troop will be unable to satisfactorily perform this duty towards the north, the exposed flank, of the regiment. The platoon of Troop D at the Maldeuten railway station is conveniently situated to assist in this matter. But the latter easily might need reinforcement, and if it remained under the immediate command of the colonel, the latter, contrary to his wishes, would have to continually arrange the various details. Therefore the colonel orders as follows:

"The regiment provisionally will march via Gr. Bestendorf and Mohrungen to Gr. Hermenau. Troop C is detailed as advance guard. I shall personally give the captain his orders. Major W——, commanding 1st Squadron, is charged with the protection of the left flank. For this purpose he may use the

platoon of Troop D now at the Maldeuten railway station. Our march will begin at 5.10 a. m., at a walk. Afterwards the gait will be regulated by that of the advance guard, where I shall be."

The regimental and squadron adjutants write down this order.

Then the colonel joins Troop C and gives the captain the following orders:

"Hostile patrols arrived last night at Wormditt, Guttstadt and Brückendorf. The regiment provisionally will march via Gr. Bestendorf and Mohrungen to Gr. Hermenau. You will form the advance guard with your troop. Besides protecting our march in front, it is important that you reconnoiter the defile between Narien-see and Mahrung-see and the Willnau–Kallisten road. Lieutenant C—— left the railway station nearest Horn at 3 a. m. to-day to reconnoiter via Brückendorf towards Jonkendorf–Gr. Buchwalde. There is still telegraphic communication with the station nearest Horn via Mohrungen; also with Liebstadt. Troop A at 4 a. m. advanced from Maldeuten to Gr. Hermenau and will reconnoiter towards Wormditt–Guttstadt–Münsterberg. Major W—— is charged with the protection of our left flank. You will keep connection with the main body of the regiment. I shall remain with your troop and indicate the gait."

After having satisfied himself that Captain W—— has obtained no information concerning the enemy, so that presumably the march will not be interfered with for the present, the colonel sends the following written order to the officer in charge of the baggage train:

The baggage train will start at 6 a. m., at first following the regiment on the Mohrungen–Georgenthal highway to a point east of the Mohrungen railway station.

It may seem strange that no arrangements are made for the protection of the bagage train, which might be attacked by hostile patrols from the north. It also may have been

noticed that the regimental order of May 4th neither designated an escort nor a commander for the train.*

With the baggage train of a cavalry regiment (supposedly about 400 yards long, but probably 500 or 600 yards long) there always is a considerable number of armed men, such as men in charge of led horses, convalescents, men whose horses have become disabled, and other detailed men—probably amounting to 7 or 8 men per troop and aggregating 80 or 90 all told. If these men are properly utilized, and not unnecessarily scattered, they will be sufficient to drive off hostile patrols.

The detail of 8 or 10 troopers would not help matters much, especially as there always are some mounted men with the train. The men with the train would best be commanded by an officer and this is the rule in our field maneuvers. But in time of war an officer seldom can be spared for this purpose, as his presence would be badly missed in his command,† whereas he probably never would become actively engaged with the enemy while with the train. Why would not one of the paymasters answer the purpose? All of them are reliable non-commissioned officers accustomed to command. Even for an entire division, paymasters in time of war have often conducted trains with perfect satisfaction. In the regimental order no mention is made of a paymaster to command the train because it is assumed that he has been permanently detailed for this purpose.

Some explanation is necessary for the colonel's order requiring the troop to preserve connection with the main body.‡ This is contrary to the requirement of the (German) Field Service Regulations, which provide that subdivisions of columns shall preserve connection with those farther to the front.

*But see pars. 399, 401, and 402, F. S. R.

†Par. 401, F. S. R., provides that the regimental quartermaster shall control the train. The Germans keep all their regimental staff with the troops for service with them.—*Translator.*

‡But see par. 105, F. S. R., where this is prescribed.

In woods, close country, at night, or in a fog it often happens in larger commands that connection is lost. Who has not experienced this? I ascribe the fault mainly to the above named requirement. The commander of the entire force usually is in front with the advance guard and directs its movements. If the commander of the main body or of its leading unit, who but casually understands the situation and knows nothing of the information received, is charged with preserving connection, he can simply make the customary arrangements: he sends a few privates forward where even an officer at times might be led astray. In close country, in towns of straggling villages, for example, the advance guard sends a reconnoitering detachment to one side, the connecting-file may easily mistake this for the advance guard itself and, following it, may lead the entire main body on a wrong road, for there is no one with the latter who at once would recognize the mistake. But the advance-guard commander knows the road and all he has to do is to notify the main body the moment there is a change of direction, or if it becomes difficult to follow. If he is held responsible for preserving connection, he will be careful to see that the main body does not lose its way, for he alone, aside from the commanding officer, is able to do this. This provision of the Field Service Regulations doubtless is a relic of the time when the commanding officer, who had to know the road, habitually marched with the main body and not with the advance guard.

Now let us see what the subordinate commanders decide to do in consequence of the colonel's orders.

FIRST: WHAT ARRANGEMENTS DOES MAJOR W——, COMMANDING FIRST SQUADRON, MAKE?

The major is charged with the protection of the left flank of the regiment. Here, naturally, as elsewhere, "protection" includes keeping the enemy at a distance and preventing recon-

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naissance on his part. This need not be impressed on an experienced cavalry officer, although good protection does not always insure perfect screening. For example, holding a bridge may prevent all attacks by the enemy, while neighboring heights might afford him ample opportunity for reconnaissance.

At first the Bestendorf Forest will form a complete screen for the regiment; if it is to remain so, the enemy must be prevented from entering it unobserved. A protecting body therefore must be sent to the north border; in part also because that affords an extended view. As the regiment will start at once and soon will go at an increased gait, there is no certainty that the platoon at the Maldeuten railway station will gain sufficient distance via Freywalde to insure its being able to protect the flank in time and by itself. Therefore Major W—— selects a platoon of the leading troop and instructs its commander as follows in the presence of the troop commander:

"The regiment will start at once and at first go as far as Gr. Hermenau via Gr. Bestendorf–Mohrungen. Troop C, which is in advance, will form the advance guard. You will cover the left flank and at first will ride via Alt-Kelken to the north border of the forest and then in the general direction of Steindorf–Rollnau to Wiese. You will remain at Wiese until further orders, reconnoitering thence towards Kahlau, Goldbach, and Silberbach. The 1st platoon of Troop D, which now is at the Maldeuten railway station, will at first follow you via Freywalde to Rollnau and protect the flank in rear of you."

The 1st platoon of Troop D receives orders conforming to the foregoing. It is self-evident that both platoons must look out for their own protection towards the north and must observe the region about Hagenau and Königsdorf. Their orders contain nothing about the enemy, because it may be assumed that the squadron commanders already have told all their officers what is known of the enemy, and that the

officer at the Maldeuten railway station secured this information for himself from the telegraph office at that place.

It is true that half a troop is used as flank guard, but the two platoons will not have to make much of a detour, and presumably they could be on hand in case of an engagement. The distance accidentally existing between the two platoons is not objectionable; it broadens the front of protection on the north. The platoons will arrive respectively at Wiese and Rollnau before the regiment passes Mohrungen, and the anticipated halt at the latter place will enable the major to issue further instructions.

WHAT ARE THE ADVANCE-GUARD COMMANDER'S ARRANGEMENTS?

It may be assumed that the captain has vedettes at Wolla and Alt-Kelken and a patrol on the highway at the eastern exit of Gr. Bestendorf. Protection must promptly be arranged for to the front, so that the regiment's march may not be delayed. Therefore the captain orders as follows in a loud tone of voice, so that every man may understand:

"The troop is the advance guard for the regiment. The line of march at first is through Mohrungen to Gr. Hermenau. Troop A went ahead an hour ago over this road.

"*Patrol ahead of the advance party:* Lieutenant G—— and 8 troopers, including the patrol at the eastern exit of Bestendorf. You will ride ahead, at first to the vicinity of Alt-Bolitten and Herzogswalde.

"*Advance party:* Sergeant B—— with 1 corporal and 10 troopers. You will go past Mohrungen railway station and Georgenthal—trot out!

"*Right flank patrol:* Lieutenant N—— and 12 troopers, including the vedette at Wolla. You will ride through Kuhdiebs–Paradies-Himmelforth–Willnau towards Kallisten, and will protect the right flank of the regiment. Messages at

first will be sent to Mohrungen, with which point there is still telegraphic communication from Horn railway station; later, messages will be sent direct to Gr. Hermenau. Lieutenant C——, 1st Cavalry, who left Horn railway station at 3 a. m., is going past Brückendorf towards Jonkendorf. You must hasten your ride as far as the vicinity of Horn.

"*Left flank patrol:* Sergeant K—— with the vedette at Alt-Kelken, and 5 troopers. You at first will ride past Alt-Kelken–Neu-Bestendorf–Neuhof to the north exit of Georgenthal and will protect the left flank of the troop.

"*Sergeant V—— and 5 troopers:* You will ride between the troop and the main body of the regiment, and are responsible for preserving connection between the two bodies."

If, in the meantime, the troop must start, he can give part of the instructions *en route.* The captain rides at the head of the main body of his troop and keeps the advance party or connecting-files in sight.

The colonel, who has listened to the captain's orders, adds the following to Lieutenant N——'s orders: "Be sure and report by wire from the station nearest Horn. Major D——, with 3 troops of the 3d Cavalry, leaves Drenken at 5 a. m., following the regiment at first and then reconnoitering through Pfeilings toward Jonkendorf." The colonel's additional order shows how judicious it was for him to have listened to the captain's orders. It was not done from distrust of the latter's judgment, but from a desire to keep track of events and to be able to add to his own orders if necessary, which would still be possible at this time. In his orders to the captain he omitted the information concerning the detachment of the 3d Cavalry, which is of importance for the troop as well as for Lieutenant N——. Such an error may be made by even the most methodical commander. In listening to the orders given by a subordinate, a superior must be very careful to interfere only in case

of extreme necessity. He should give the subordinate a free hand, even if thereby his orders are carried out a little differently from what he had anticipated.

Neither of the commanders has given any instructions about the distance of the advance party from the troop or of the latter from the main body of the regiment. The colonel himself will order the advance guard to start, and then will regulate its distance from the main body of the regiment without expressing this in figures. The captain purposely omitted stating in yards the distance the advance party should be ahead of the troop. It is self-evident that the advance party must try to reach the edge of the woods west of Mohrungen as soon as possible, to get a good view; an order to keep 1,000 yards ahead might only serve to confuse it in this intelligent purpose.

Sergeant V——'s orders to preserve connection with the main body does not relieve the captain of the responsibility for the proper execution of this duty. But the sergeant is a well-instructed intermediary, able to transmit information from the captain to the main body concerning any change of route.

As soon as the advance party and patrols had made some headway, the colonel had the main body of the troop start and at about 6 a. m. he arrived with it at the eastern edge of Bestendorf Forest. Here Major D——, of the 3d Cavalry, comes up. The colonel informs him of his intentions and arrangements. The major reports that he intends going via Brückendorf. The advance guard inquired for telegrams at the Gr. Bestendorf station, and brought the colonel the message sent by Captain E—— at 5.20 a. m. from Mohrungen, in which the latter stated that the situation remained unchanged and that he would continue his advance towards Gr. Hermenau. At 6.25 a. m. Colonel A——, the advance guard, and Major D—— arrived at the Mohrungen station, where the following message from Lieutenant C—— was received by the colonel:

Hillside just west of BRUCKENDORF,
5 May, 4-10 a. m.

Found railway station near Brückendorf occupied by enemy, who fired on us.

C——,
Lieutenant.

The message was wired at 5 a. m. from Horn railway station. It was also learned that this station no longer answered to its call. Nothing was seen of the enemy at Neuhof, Wiese, Georgenthal, or Döhringshof.

The colonel did not see fit to stop the march. He surmised that only some advance patrols of the enemy had reached Horn and believed that Major D—— could cope with them. The regimental commander's decision is of interest because there is a possibility that larger hostile bodies of cavalry already may have reached the defile between Narien- and Mahrung-see. But it will not do to halt on account of this possible contingency so as to assist Major D—— in case of necessity. It might take a long time to find out something definite, and we might keenly regret the delay if in the meantime the enemy appeared from the north, where the regiment's main duty lies.

Major D—— remained to await the arrival of his troops; Colonel A——, with the advance guard took the road past the railway station towards Georgenthal, but sent an officer into the town of Mohrungen to inquire for messages of the Postal Telegraph office, destroy all tape records of the past few days, and question the mayor concerning news of the enemy.

Upon arriving at Georgenthal at 6.50 a. m., Colonel A—— received the message from Captain E——, which was as follows:

GR. HERMENAU,
5 May, 6-20 a. m.

Twenty hostile troopers were at Wormditt last night, destroyed the railway and telegraph at that point, and left on the way towards Alken at 1 a. m. I am not pursuing them. Sergeant H—— and 5 troopers are now at Wormditt.

Lieutenant B—— encountered a platoon of hostile cavalry at Scharnick early this morning, and at 5-30 a. m. had retreated to Pittehnen. At 5 a. m. to-day 12 hostile troopers, coming from Lettau, rode towards Her-

zogswalde. Their whereabouts is not known. Lieutenant F—— is reconnoitering via Kallisten towards Guttstadt.

Troop A will advance via Herzogswalde–Pittehnen to reconnoiter the Liebstadt–Guttstadt road.

Lieutenant F—— sent a lance corporal and 2 troopers to Sackstein. No report yet received from him. I am leaving connecting-posts at telegraph stations in Liebstadt and Gr. Hermenau and at Herzogswalde.

E——,
Captain.

Continuing at a walk, Colonel A——, while he held his map before him, had the message read to him. It is less troublesome to find the names of localities than is usually the case on peace maneuvers. The seriousness of war forces commanders and their staffs to carefully consider all contingencies in advance and familiarize themselves with the map.

The message contains nothing necessitating a change of plans, particularly as in the meantime nothing has been seen of the enemy at Goldbach or Silberbach.

At 7.15 a. m. the advance guard reached Gr. Hermenau. The colonel discovered that telegraphic communication still existed with Liebstadt and that the patrol of Troop A located there knew nothing of the enemy. Beyond Liebstadt telegraphic communication exists only as far as Sportehnen. A short message was received from Captain E—— at Herzogswalde, stating that he had seen nothing of the enemy there and had received no further information. The troop had resumed its march towards Pittehnen at 6.50 a. m., and had sent the connecting-post under Captain M—— to the Teufelsberg. The colonel thought it inadvisable to pursue the hostile patrol that went from Wormditt towards Alken, but he informed the advance guard commander and Major W—— about it. He sent a short telegram to the corps commander, stating what had been accomplished, and then quietly continued the march towards Herzogswalde, leaving 1 non-commissioned officer and 4 troopers at the telegraph station in Gr. Hermenau.

Arriving at Herzogswalde shortly after 8 a. m., the regimental commander receives the following messages:

1. From Corporal M——, Troop A, Teufelsberg, 7-55 a. m.

Ten hostile troopers were seen riding along the road from Näglack towards Banners. They were pursued in an easterly direction by a platoon of Troop A, 1st Cavalry. The troop is now in the vicinity of Reichenthal. Nothing else seen of the enemy.

2. The same non-commissioned officer transmits the message sent by Lieutenant F—— at 6-30 a. m. from Knoll 157 southwest of Heiligenthal. (See page 47.)

3. A message from Major D——, sent from Döhringshof at 7-20 a. m.

Fifteen hostile troopers reported as retreating from Pfeilings along railway. Nothing heard from Lieutenant C——.

This message was wired from Mohrungen to Gr. Hermenau. No word has been received from the patrols sent out by the advance guard towards Reichau, Sanglau, Waltersdorf, and Sackstein. The situation is still obscure. The regiment has marched nearly 16 miles and is considerably ahead of the army corps. It is still early and there may be considerable more to do to-day. Colonel A—— thinks it best to order a halt, which will give the reconnoitering bodies time to obtain further information. He sends an officer to Troop A to find out something more definite about this (his most important) reconnoitering body.

The squadrons are billeted on Herzogswalde for rations and forage; the advance guard is charged with the protection of the regiment towards the south and east, while Major W—— continues to see to the protection towards the north. (In the the meantime the platoon of Troop C has rejoined the troop; and the 1st platoon, Troop D, is at Alt-Bolitten.)

The colonel takes advantage of the halt to orient himself and obtain a personal view of the surrounding country. First he goes to the Teufelsberg, where he learns that the message from Sackstein, referred to by Lieutenant F——, has not been received, and carefully scans with his field-glasses the broad

expanse of country visible. His view extends beyond the line Willnau–Seubersdorf–Kallisten and to the heights east of Deppen and to Waltersmühl. Our own patrols are visible at Reichau and Waltersdorf, but nothing is seen of the enemy. No conclusions can be drawn from the movements of individual figures seen in the distance. Following the horizon around farther to the north, Hohenfeld is seen. A view to Elditten and Pittehnen is prevented by the tree-covered heights east of Gr. Prägsden and west of Reichenthal. To the north, Liebstadt and the country west of the railway can be seen, but nothing suspicious is noted. Then the colonel rides across country between Herzogswalde and the Wuchsnig-see, to the north end of this lake, hoping there to get a glimpse of the country about Pittehnen. But even Height 153 does not admit of this. At Elditten he sees several horsemen, but cannot tell whether they are friend or foe.

At 9.30 the regimental staff officer of the 1st Cavalry sent to Troop A returns with Captain E——'s message of 8.50 a. m. (See page 84.) While the staff officer is giving a more detailed account, a message is received from Sackstein, stating that our patrols are being fired on from the right bank of the Passarge at that point; but that the enemy's strength could not be determined; and that individual hostile troopers are visible on the heights near Waltersmühl.

The squadrons found forage in Herzogswalde, and it may be assumed that they have watered and fed by this time, 9.35 a. m.

WHAT ARE COLONEL A——'S FURTHER INTENTIONS?

(Lieutenant F——'s message dated 7.35 a. m., from Komalmen, has not been received by the colonel, and therefore cannobe considered.)

Considerable valuable information is at hand, and a successful encounter has been had with the enemy; nevertheless

there is uncertainty about many things, and it is by no means self-evident what shall be done.

We again see that uncertainty is the normal condition in war, and that the more commanders are obliged in time of peace to grope about in this semi-darkness, the more will their sense of touch and power of combination be developed.

Troop A's engagement with the enemy has demonstrated that we have to deal with quite a force of the enemy's cavalry. One of his troops has been temporarily defeated, but where the remainder of his cavalry force is can only be surmised. Whether it is acting alone or in combination with other troops is entirely unknown. The hostile regiment of dragoons was at Heilsberg during the night and sent one of its troops towards Pittehnen. But so far nothing but hostile patrols have been noticed at Kallisten and Sackstein; and a larger body hardly could have concealed itself in the river valley near Sackstein. Thus it is possible that the hostile cavalry, or at least a part of it, will follow towards Pittehnen. This assumption is the more likely to be correct because it may seem more advantageous to the hostile commander to advance past the north end of Narien-see than through the defile between it and Mohrung-see. Of course, if this assumption is correct, the enemy can just as well advance via Wormditt or Kalkstein as via Pittehnen. It does not signify that so far nothing has been heard from the patrol at Wormditt. It is a long way off, the patrol may have been pushed aside, or its message may have been intercepted.

Nevertheless, should the hostile cavalry as a whole or in part come via Guttstadt–Kallisten–Willnau, it at first would meet Major D——, and later the advance guard of the army corps, which would be less objectionable than if it succeeded, by a detour to the north, in reaching the flank of the 1st Army Corps and locating one flank of the army.

Herzogswalde is favorably located, in that from here the regiment can promptly advance against the enemy should he

approach on any of the above-named routes. But, after all, is it Colonel A——'s duty to advance against the hostile cavalry? According to the wording of the order, he is simply to "reconnoiter," and the Field Service Regulations emphasize that, "the main object being to observe the enemy, combat should be avoided, except as a means to this end."*

Before further discussing Colonel A——'s plans, it is desirable to get a clear idea of this fundamental question.

A great number of patrols close to each other, on an extended front, followed by contact troops, apparently would insure our cavalry seeing everything to a great distance. However, if the reconnoitering is to be performed in this way not for only two or three days, but for a long time, provision must be made for the relief, reinforcement, and support of this advance cavalry, for even the contact troops will be able to continue this destructive activity for a few days only. This necessitates a further division of the force, so that possibly each regiment of the cavalry brigade would have to advance on a separate road. Although this theory has been advocated by some, still it is generally objected to, because thereby the force would be too much scattered. Experience proves that sometimes it is necessary to fight to clear up the situation, and that to succeed in this event it is necessary to keep the force together; for it is seldom that we know in advance whether there will be a fight or how strong the enemy is. But there is another reason for keeping your force together and being careful in sending out detachments. The enemy is quite as anxious as we are to get information, and to insure our success it is almost as important to prevent the enemy from reconnoitering and to keep his commander in the dark as it is for us to have ample information of him.

Preventing hostile reconnaissance, which under the term of "screening our own movements" is not as clearly and

*See par. 65, F. S. R.

sharply defined as it should be, must be considered by our cavalry as of almost equal importance with reconnaissance. The word "almost" in this sentence is justified only on the supposition that our own commander-in-chief is superior to the enemy's and is better able to utilize the information he receives than is the case with the enemy.

By combat alone can this end be attained, and rational principles of warfare teach that it is not necessary to defeat every small detachment, but simply the main hostile force; which result will immediately be followed by the retreat of the smaller detachments, and end the enemy's extended activity in reconnaissance, while furthering our own. No one would censure the cavalry leader who, trusting in his own good troops, looks upon a combat with the hostile cavalry not as a last resort, but as the first and best one. If he seeks a decisive encounter instead of avoiding it, his confident demeanor will be a powerful factor for success as opposed to any less certain and determined enemy.

A recognition of the correctness of this principle will not induce a prudent man to omit carefully weighing each separate case or utilizing every advantage. He would not wish to offer an easy victory to a superior hostile force. Cool calculation must check eagerness for combat; first consider, then venture. Sometimes, contrary to our wishes, safety lies in accepting the inevitable by patiently and craftily waiting for a favorable opportunity.

It therefore will be well for Colonel A—— from the beginning to bear in mind the possibility of an encounter with the enemy and try in advance to secure all possible advantages in case the combat should take place as early as to-day. Even the halt for feeding at Herzogswalde will pay for itself by increasing the power of endurance of his troops.

The foregoing general remarks were called forth by the fact that the regiment from Herzogswalde could oppose the

enemy on any of his possible lines of advance. It may be assumed that our patrols at the latest would discover the enemy when he crosses the Passarge at one of the few bridges. And the elevated ground near Wuchsnig-see makes it possible to discover the enemy's arrangements and strength while still at a distance. Presumably the enemy is still in ignorance of the presence of our regiment, and, by remaining motionless and under cover at Herzogswalde, it probably would not be discovered, so that it would be able to make an unexpected attack, or, in case of the enemy's great superiority, it would be able to retreat in time.

It is not very tempting to lie in wait for an enemy who may be making a long detour or possibly has no idea whatever of crossing the Passarge. But had we reliable information of the advance of greatly superior hostile forces, such action would be earnestly recommended, as a continuation of our advance would be admissible only under very exceptional circumstances. Only too easily the advantages of a dash to the Alle under such conditions might be lost by sacrificing the regiment. But the incentive for such an enterprise is wanting—viz., the certainty of the advance of a superior hostile force. It is possible and even probable that we will encounter such a force; but the contrary is also possible, or the possibility of meeting a detached force that, however, would still offer a chance for a victory. Our own consciousness, and historical criticism, would never forgive us if, through excessive caution, we lost the chance before the decisive battle to penetrate the darkness that so far has surrounded the enemy's movements.

If after thoughtful consideration it seems to be a choice between boldness and caution, there can be no doubt as to the proper course to follow.

Therefore Colonel A—— decides to continue his march. The direction is fixed by the fact that hostile reconnaissance from the north must be especially opposed and that a safe

crossing of the Passarge has been secured by Captain E——. This direction of advance also will make it more difficult for the hostile troop, which has retreated towards Stollen, to resume its advance. On the right bank of the Passarge, Colonel A—— depends on receiving further news from Captain E——, as a basis for further arrangements. Already in going to Pittehnen he will have the regiment advance as much as possible under cover, even if to do so he would have to leave the regular road. Only in case of absolute necessity would he be willing to sacrifice the advantage of remaining unseen and of being able to surprise the enemy. Captain E—— is informed of the colonel's decision. The colonel does not think it necessary to make further report to corps headquarters at this time.

At 10 a. m. the advance guard arrives at Pittehnen and the main body at Reichenthal. The commander of the connecting-post at Pittehnen turns over the following messages:

1. From Sergeant K——, sent from Stollen, 5th May, 9-15 a. m.

The hostile troop crossed the Passarge north of Sportehnen and disappeared in the woods. There is no enemy at Kalkstein, where there are two fords. Nothing is to be seen of the enemy as far as Albrechtsdorf.

2. From Lieutenant B——, sent from Height 114 northwest of Dittrichsdorf, 5th May, 9-35 a. m.

Nothing suspicious visible at Kalkstein or Voigtsdorf, on the highway west and east of Arnsdorf, or at Lauterwalde–Petersdorf. A hostile patrol rode through Dittrichsdorf two or three hours ago. I shall go via Arnsdorf towards Freymarkt.

3. From Captain E——, sent from Kleinefeld, 5th May, 9-40 a. m.

After my advance party drove back 5 or 6 hostile troopers from Kleinefeld towards Scharnick, 2 of Lieutenant F——'s messengers, who till then had been stopped by the hostile troopers, delivered the inclosed message. I have not received Lieutenant F——'s 7-35 a. m. message. Aside from the above 5 or 6 troopers, nothing is seen of the enemy in the country before me. And nothing is visible on the Elditten–Guttstadt highway, which I can see quite well to beyond Lingnau. A hostile troop rode through Wolfsdorf this morning, presumably the one I defeated at Pittehnen. At Sackstein there is a hostile patrol that I shall drive away. I shall next ride to Waltersmühl and send an officer to Guttstadt.

Lieutenant F——'s message is as follows:

ZAUN-SEE, near KOMALMEN,
5 May, 8-35 a. m.

Five hostile troops of cavalry are advancing along the Guttstadt–Heiligenthal highway. The leading one is the one I reported at 7-35 a. m. and must be at Heiligenthal by this time; the other four have passed Queetz. There is nothing visible on the highway back of them as far as near Glottau. Hostile patrols have prevented my sending a message until now. I shall remain here in observation.

WHAT DOES COLONEL A—— DECIDE TO DO?

The situation has not materially changed since the regiment left Herzogswalde. Apparently there are no large bodies of hostile cavalry on the Liebstadt–Guttstadt highway or the country north of it (though this is by no means certain); but that these, contrary to all expectation, have taken the road from Guttstadt to Kallisten.

Five hostile troops are reported, and they probably belong to the 5th Dragoons, of which one troop was defeated at Pittehnen; but possibly they simply are the advance guard of a larger body following at some distance. From present indications they are going past the south end of Narien-see. Of course they might change the direction of their march if they heard of the presence of our regiment or of the misfortune that befell their troop at Pittehnen. Should they continue the march beyond the left bank of the Passarge, they will reach Näglack, Reichau, or Willnau by 10.30 a. m. But for the present they might be content to hold the Passarge bridge at Kallisten and send out patrols from that point. This is highly probable if the 5 troops as yet have no substantial backing. Already, at Mohrungen and Herzogswalde, Colonel A—— had reflected on the possibility of hostile cavalry driving back Major D——, advancing towards Mohrungen past the south end of Narien-see, and thus discovering the advance of the 1st Division. Notwithstanding this, he chose the northeastern line of march, because it seemed to him more important to prevent hostile reconnaissance of our left flank and because he hoped for better

results from reconnaissance extending around by the north. It would be detrimental for us to have hostile cavalry discover the head of our infantry columns at one point or another, but it cannot always be prevented on a broad front. However, it would be of much greater advantage for the hostile commander-in-chief to locate the flank of our army; for example, to learn that strong columns are marching on the Saalfeld–Mohrungen highway, and that the district north of that road is unoccupied. This would form a safe basis for his decisions, while the discovery of the head of a column at Mohrungen would not be a guarantee that other blue columns are not marching on Liebstadt and Wormditt.

Therefore if the hostile cavalry remains in the direction of Kallisten–Willnau, it can do but little damage, and the regiment unhesitatingly can devote itself to its reconnaissance towards the Alle. But it is not yet known in what direction the enemy will advance after crossing the Passarge. Should he advance via Herzogswalde–Gr. Hermenau, the hostile commander-in-chief might be furnished with the important information above referred to. At present (10 a. m.) the regiment is only about 3 miles from Herzogswalde, and within an hour we might have an opportunity to render the enemy harmless, and then be able to resume our reconnaissance to the east with our messenger-route secured. This possible chance must not be thrown away. But it would be a mistake for us to enter on a wild chase after the 5 hostile troops on the left of the Passarge. The distances are too great and the country is too extensive. And, anyway, who can tell whether we shall find the quarry? Possibly the enemy will remain at Kallisten, as already suggested. In this case the regiment would have the bothersome stream between itself and its objective. At Pittehnen the regiment, so to speak, has one foot on each bank of the stream, ready to draw either to the opposite side if necessary. Troop A by this time must be near Waltersmühl and

have a view of the Queetz–Heiligenthal road as well as towards Kallisten. In a short time we ought to have word from the troop and the numerous patrols sent via Willnau, Reichau, Lettau, Waltersdorf, and Sackstein, as to whether the enemy has crossed the Passarge and what route he has taken from Kallisten. It seems all the more desirable to await this as our reconnaissance towards Guttstadt and Heilsberg does not seem to be interfered with at present, and the delay in the regiment's advance therefore does not check its regular work. The colonel's desire for action is again blocked by this renewed halt, but experience has taught him that it is the rule for closed bodies of cavalry to advance tentatively, cautiously, and deliberately until that moment when the occasion calls for quick and sure action. He knows that nothing so quickly destroys the confidence and efficiency of men as when hasty decisions have to be paid for by many miles of trotting.

The colonel will take advantage of the proximity of the telegraph station at Liebstadt to send his report to corps headquarters, in which he will invite attention to the advantage of having Gr. Hermenau promptly occupied by a detachment of cyclists so as to check hostile reconnaissance.

The situation growing out of Lieutenant C——'s reconnaissance is of more than ordinary interest, and therefore will next occupy our attention. His experience could not be continuously followed without presenting a distorted picture.

Lieutenant C—— had cut the telegraph wires at Schaustern and at 7 a. m. had arrived at the grove east of Schaustern apparently without having been detected by, and without himdetecting, the enemy. (See pp. 57–72.) His patrol, besides himself, still consists of 1 non-commissioned officer and 8 troopers, one of whom is leading a captured horse. At Schaustern it was learned that yesterday evening about 20 hostile

troopers passed through there, going towards Brückendorf. Nothing has been learned from the neighboring villages, because everybody is staying at home. Lieutenant C——, carefully working forward through the various groves, at 7.20 a. m. reaches Knoll 160 north of Gottken and from here sees several horsemen riding from Height 155 east of Wengaithen towards the latter village, and also sees several others riding along the highway from Jonkendorf towards Pupkeim. He withdraws to the north-most grove, from whose border he carefully continues his observations. The groves consist of a mixture of pines and firs, with underbrush along the border, whose young foliage affords fair cover, so that the officer succeeds in remaining concealed and by 9 a. m. has discovered the following: Four hostile troops followed the advance party on the Jonkendorf–Pupkeim highway, and at the latter place diverged towards Schlitt, They have just (at 9 a. m.) passed Schlitt. Since then no others have followed them on the road as far back as near Jonkendorf, where the lieutenant's view ends. Another hostile body of one or two troops rode over the ridge east of Wengaithen towards the latter village, but could not be followed any farther, as Knoll 160 was occupied for some time by a hostile patrol and the Wengaithen–Schaustern road could not be seen from the hiding-place. Since 8 a. m. nothing more has been seen of the enemy at Wengaithen.

Lieutenant C—— did not care to report the hostile patrols, for which purpose the way probably would still have been open via Neu-Kockendorf–Kloben or via Kämmersdorf. When he saw the closed bodies of the enemy the patrols already were far in advance—some troopers had gone via Pupkeim towards Neu-Kockendorf—so that his message no longer could get through.

WHAT ARE LIEUTENANT C——'S ARRANGEMENTS AND INTENTIONS AFTER 9 A. M.?

It is self-evident that it would be of considerable value for Colonel A—— to know what Lieutenant C—— has seen. How can the information be sent? The regiment might have reached Gr. Hermenau at about 7 a. m. It is hard to guess where it now is or where it will be two or three hours from now.

It is true that later Lieutenant C—— is expected to rejoin the regiment via Kallisten, and naturally a message should be sent in that direction. But even should the messenger succeed in getting through the hostile cavalry, it may be confidently assumed that the events would overtake the message. Long before it could reach the regimental commander the latter would gain touch with the enemy. It is all the more hazardous because the Passarge can be crossed only on bridges, and these the enemy surely will hold. In view of the fact that the messengers (of whom there must be at least two) must avoid meeting the enemy, how will they be able to find their way without a map over the circuitous route they must take? Lieutenant C—— does know that Troop A is to reconnoiter ahead of the regiment towards Wormditt–Guttstadt–Münsterberg. But it seems even more hopeless to try to find the troop in the broad expanse of territory between the Passarge and the Alle. It might be suggested that the message be sent to Locken, and thence either be wired via Osterode to Mohrungen, or be delivered to the advance parties of the 2d Army Corps, which by this time should have reached that vicinity. But even if promptly forwarded by wire, the message probably would not reach the regimental commander until afternoon. Its contents are of no value for the commander of either the 1st or 2d Army Corps, for these know without being told that closed bodies of cavalry will follow the hostile patrols. The manner in which these troops are grouped is of no particular value to the corps commanders; and the message gives insufficient information

concerning their strength, because those so far seen might be followed by entire regiments in the next half-hour.

The result of the deliberation is: A message reporting the appearance of the hostile troops of cavalry would be of but little use, probably would not reach its destination, and would seriously weaken the already reduced patrol. It is evident that Lieutenant C—— cannot be of service to the colonel in the latter's immediate deliberations. Any information that Lieutenant C—— might send him about the appearance of hostile cavalry near Pupkeim would not arrive in time. He will the more energetically devote himself to the general issue: the reconnaissance towards Jonkendorf–Gr. Buchwalde. Should he succeed in reaching Allenstein Beechwoods (Allensteiner Buchwald) unobserved, he may hope not only to get a view of Jonkendorf, but also of the Jonkendorf–Göttkendorf highway.

After the hostile troops have disappeared from view towards Schlitt, and it had been ascertained from the south-most grove, near Knoll 160, that the enemy no longer was visible at Windtken, Ballingen, or Gottken, the patrol trotted towards Allenstein Beechwoods, utilizing the cover afforded by the ground. It is hard to get through the woods, on account of some marshy ground and several wet ditches. The patrol does not reach the edge of the woods near Knoll 173 until 10.30 a. m. From this point Jonkendorf, Mondtken, and the highway can be seen almost as far as Wilhelmsthal. To the east the view extends as far as Knoll 143 northeast of Mondtken. No one is to be seen anywhere.

WHAT ELSE WILL LIEUTENANT C—— DO?

Although the colonel's orders simply call for a reconnaissance to Jonkendorf, and do not indicate that it is to extend beyond this point, still it must seem very desirable to go a little farther.

The preceding night at Maldeuten, when the colonel dictated the order, he must have looked upon the line Jonkendorf–Gr. Buchwalde as a well-advanced goal, and in doing so it probably did not occur to him that the patrol might get behind the closed bodies of the hostile cavalry. This is a rare piece of good luck of which the patrol-leader must take advantage on his own initiative. The commanding officer in advance cannot mention all possibilities, his orders thereby would become too minute and indefinite. He must depend on an officer's supplementing his orders where demanded by circumstances. Subordinates should not aim to carry out their orders literally, but to efficiently support their superior's intentions and intelligently utilize all advantages that chance may offer.

According to the wording of Lieutenant C——'s orders, it would answer if he now rode to the vicinity of Gr. Buchwalde and then to Kallisten to look up his colonel and report: "At 10.30 a. m. there was no enemy at Jonkendorf or Mondtken, and at —— a. m. there was none at Gr. Buchwalde."

But this can't be done now. Having come this far, is it not possible to investigate a little farther and provide headquarters with better information? Under proper supervision few officers would be lacking in the enterprise and insight here necessary to independently exceed these orders.

The farther the patrol now advances the more easily may its retreat be intercepted. The district towards Allenstein, bounded by river, lake, and marshy ground, calls for special caution. As the patrol should remain undiscovered, it is advisable not to advance from Knoll 173 straight across the open country between Jonkendorf and Mondtken, but to work along the edge of the woods to the vicinity of Knoll 143, and then, rapidly crossing the open country, to gain the shelter of the grove east of Mondtken.

The northwest corner of this grove was reached at 11.20 a. m., and the non-commissioned officer with 2 men was posted at the southern edge, while Lieutenant C——, from a favorable lookout at the northwest corner, carefully examined the vicinity. Here, as elsewhere, a pair of good field-glasses proves to be of great value for the cavalry officer. The very best kind is only just good enough. Lieutenant C—— overlooks the valley of the Alle to beyond Bergfriede, the Mossongsee and the hills on its eastern shore, the wooded lowlands to beyond Braunswalde, whose northern exit and its church are very distinctly visible. He also sees the elevated village of Hochwalde, but Diwitten is hidden by woods and hills. He sees nothing suspicious anywhere. A section-hand, who has remained in his section-house at the edge of the grove, says that early in the morning several hostile troopers went through Kainen towards Polleicken. The officer has the telegraph wire cut, with the assistance of the section-hand, and then proceeds to the south edge of the grove. From here he can see as far as Redigkainen and Height 138 east of Redigkainen-see ("Redigk. S." on map). Knoll 124, near Kaltfliesz, obstructs part of the view, but, past its southern end, the western end of the Göttkendorf railway station can be seen, and, proceeding farther west, the terrain sloping upwards to the heights on the northern shore of the Okull-see can be seen. The towers of Allenstein are plainly visible in the distance. Four horsemen are trotting from Göttkendorf towards Wilhelmsthal along the highway. Nothing else is to be seen of the enemy in this district, either. The officer is aware that the Alle forms an obstacle similar to the Passarge, and the section-hand states that a horseman could not ford it; that the meadows of the Alle are reported soft and marshy; and that there is a wooden bridge at Kainen suitable for light teams.

WHAT WILL LIEUTENANT C—— DO AT 11.40 A. M?

Still nothing is seen of the hostile main columns. A message stating that nothing more had been seen of the enemy up to 11.40 a. m. at Kainen, Kaltfliesz, and Göttkendorf would be more valuable than one stating that none had been seen at Jonkendorf and Mondtken up to 10.30 a. m. But the difference in value is not very great, and Lieutenant C—— hopes to do still better. He does not yet despair of getting touch with the hostile main forces, well knowing how important this may be for his commander-in-chief. And though continuing his reconnaissance, he hopes to be able to report negative results in time, whose value is not to be underestimated, if none other are obtainable. Being far in advance of the army, he feels the importance of his task, for in all probability there is not another patrol in front of the 1st Army Corps that can see as far as he can. Less than four miles away lies Allenstein, whose steeples seem to beckon to him. If insight is to be had anywhere, it ought to be at this important cross-roads. Should nothing be seen there of the hostile columns early in the afternoon, and should he succeed in returning to his regiment or to Locken by evening or even by dawn the following day with this information, the commanders would have a very different basis for their further decisions than if they remained without it. It is true that difficulties are increasing. The space between the Alle and the Okull-see is becoming so narrow that the danger of getting cut off is growing to an alarming degree. Therefore, that his mission may not fail at the last moment, Lieutenant C—— decides to use extraordinary precautions, and to not cross the troublesome creek that flows past Wilhelmsthal and Kaltfliesz into the Alle until he to some extent has made sure of his retreat.

For this reason the sergeant is sent ahead with two troopers. He is to ride to Kaltfliesz, look about from Knoll 124, and, if the country seems safe, to leave one man at this knoll

and with the other one ride to the heights at the south end of the Redigkainen-see to obtain a view of the Göttkendorf–Allenstein highway. He is authorized to carefully make inquiries at the railway station, and in isolated farm-houses. The sergeant, in the presence of his 2 men, is carefully instructed about the roads and localities. He doubtless already knows how to take advantage of the folds of the ground for cover. If, in spite of this, he should stumble on the enemy, his good horse may be expected to bring him back. At any rate, the officer will receive information from the lookout near Kaltfliesz, and can govern himself accordingly. A signal is agreed upon for use between the sergeant and the patrol through the lookout, in case the sergeant finds the region about Göttkendorf free of the enemy; in which event the patrol will continue its march.

During the sergeant's absence the entire region—also to the rear—will be carefully watched, and the four hostile troopers, trotting towards Wilhelmsthal, will be kept in view as far as conditions will permit.

At 11.50 a. m. the sergeant left, and at 12.30 p. m. he returns at a rapid gait and reports:

"From an elevation near the railway station a part of the highway on this side, and beyond, a village, situated on the lake, was visible. A column, which I believe to be infantry, was marching on this highway. At the same time several horsemen appeared at Göttkendorf."

Lieutenant C—— himself sees 5 or 6 horsemen on an elevation west of the Göttkendorf railway station. The four troopers trotting ahead towards Wilhelmsthal continued along the road and disappeared from view in Jonkendorf. Nothing else has been seen of the enemy, not even from the north edge of the grove in looking towards Braunswalde and Bergfriede.

WHAT ARE LIEUTENANT C——'S FURTHER INTENTIONS?

At first it will be necessary to further observe the enemy and see if the sergeant's suspicions as to infantry are correct. This can be done from the hiding-place where the patrol has lain concealed for an hour. But shall we be able to determine the strength and composition of the enemy's force from this point? It is highly probable that Lieutenant C—— will soon be forced to vacate his point of observation. If he now boldly advances via Kaltfliesz, he may still be able to reach a point of observation on the enemy's flank and count his battalions and batteries—an achievement for which under similar conditions in maneuvers he probably already has been highly praised. Even the Field Service Regulations emphasize the importance of obtaining accurate figures of the enemy's strength.* Who knows if Lieutenant C—— will again have this opportunity? It is only necessary for the enemy to halt in the vicinity of Jonkendorf or Mondtken, and the opportunity is gone.

We here have a case where it is possible to obtain clearness on one of the duties of reconnoitering bodies that is left in semi-obscurity by the uncertain light of maneuver experiences.

If the patrol-leader an hour ago felt very dubious about advancing any farther with his entire patrol, without at first having some assurance as to the safety of his line of retreat, his farther advance now would be a bold venture, challenging fate. Even should he reach the Redigkainer-see, it cannot be hoped that later he would still find the crossing at Kaltfliesz unguarded by the enemy. He would have to retreat via Redigkainen, and it would be too much to expect fortune to keep open the route via Braunswalde to Kainen or Bergfriede. Even if the adroit officer's well-known cunning should save him from capture, it may be assumed that he would have to

*See par. 79, F. S. R.

make a detour of many miles beyond the Alle to get back. And, after that, would there be a single horse in condition to get a message on time through the enemy's cavalry on the Passarge?

But all these objections would be swept aside were it certain that the results would warrant the venture.

The scout sent ahead almost established the fact that hostile infantry is approaching, and we doubtless shall soon be able to verify this point from where the patrol now is. Of what particular value would it be if we could count a number of battalions and batteries on the highway at Göttkendorf? Imagine yourself in the commander-in-chief's position, who receives this information late in the evening or during the night. Doubtless it is important for him to know that at noon hostile infantry appeared at Göttkendorf. But of what value for him is the information that there were 2 or 4 battalions followed by 3 or 6 batteries? In rear of these there might be a great many more battalions and batteries; in the prospective encounter of the two large armies this would be highly probable on such a fine road as the one through Göttkendorf, even if Lieutenant C—— had seen but a single company or battalion. Should patrols attempt to let the whole hostile column pass so they can count every man and gun?

The highly praiseworthy and arduous efforts of the (German) Great General Staff to draw attention to the service of information of the cavalry during grand maneuvers of recent years expose certain illusions we largely had entertained, and point the way to a rational method and judicious action. The reports of the General Staff with painstaking accuracy follow the experiences of almost every patrol, and enable us to form an unprejudiced opinion. A majority of the patrol-leaders looked upon the problem as a forced ride, which promptly brought them in contact with the hostile columns, but with their horses used up, which forced them to rest there or even

in rear of these columns in very unwarlike fashion. No matter how much they saw, their superiors remained ignorant of it. The strength of the horses had been exhausted and no longer was available for sending a message which, besides, in time of war, certainly would have been captured.

Thus it has happened that the commander-in-chief never received a single message informing him of the approach of numerous hostile columns, although officer's patrols had been sent out against them in all directions, and the commanding general's decisions materially depended on a knowledge of the time at which the hostile advance parties would reach a certain district. It was not necessary to inform him that these advance parties would be followed on all good roads by long columns; and he never would have been able to calculate the strength of these columns from the most careful compilation of his patrols' reports. It is a vain and dangerous undertaking for them to try to deliver a strength report of the enemy to their commander-in-chief. They should rather remember the admonition that the best reconnaissance is worthless if information gained by it reaches the commander too late or not at all. In smaller maneuvers, such as those carried on by brigades and divisions, the efforts of patrols to learn the strength, composition, and direction of march of hostile columns, and, if possible, also the intention of the hostile commander, often are successful, and result in exhaustive reports (spoiling the commanding officers) that owe their accuracy almost entirely to the fact that in time of peace no prisoners are captured and blank cartridges are used.

And, finally, to take cognizance of another point, Lieutenant C——'s situation reminds us of the advice of the Field Service Regulations, which is that "occasionally it will be advisable for the leader to leave his patrol in a place of concealment, and continue his observation with one or two com-

panions; in the case of cavalry, the leader and the men thus detached should be well mounted."*

Anyone well versed in the Regulations very properly might ask if this should not have been done when Lieutenant C—— sent the sergeant out past Kaltfleisz, and if even now more might not be accomplished in this way than by waiting in the edge of the woods near Mondtken.

It may often happen that the officer's superior judgment and the greater speed and endurance of his horse may have to be utilized as suggested by the Field Service Regulations. But this will mostly be where the distance under consideration is short—a few thousand yards—to save the entire patrol's going over this distance, and but seldom on account of trying to remain concealed. In the open country even a single horseman would be visible, and where one can be concealed there is always cover for several. If the leader goes too far from his men, or places obstacles between them and himself, such as a stream or marshy ground, there is danger of becoming permanently separated from them. If Lieutenant C——, instead of the sergeant, had gone to Redigkainen-see, how easily might he have been pushed back from Kaltfleisz and forced to retreat via Redigkainen! And how easily might hostile troopers have driven the remainder of his patrol out of the grove near Mondtken! In neither case is it likely that the officer would have found his patrol again. He would have been unable to carry out his orders, presumably the results thus far attained would have been lost, and there would have been nothing left for him to do but to attempt retreating alone over the long and dangerous road to Kallisten. A consideration of this possibility surely would have induced him not to go without an escort, and if he took one or two men, he might as well have taken the whole patrol.

*See par. 79, F. S. R.

But there are other reasons why it is inadvisable for the officer to go entirely alone, even if he can fully depend on his horse and his horsemanship. The slightest mishap might render him helpless, or the neighing of his horse going by itself might disclose his presence.

Should the sergeant not have returned, there was nothing to prevent a continuance of the reconnaissance. But the loss of the leader robs the patrol of its mainstay and endangers its further usefulness. Imagine the situation of the sergeant, without map or field-glasses in the grove near Mondtken, if his lieutenant did not return after half an hour or an hour, or if he himself were forced by hostile detachments to retreat into Allenstein Beechwoods. It would have been right and proper for him to consider it his duty to make every effort to find his officer again. He would not have been justified to ignore the lieutenant's fate and to solely think of continuing the reconnaissance. These reasons will more strongly influence the lieutenant and decide him not to separate himself from his patrol, but to continue in observation from his present hiding-place.

About 1 p. m. troops appear at the Göttkendorf railway station, which are readily recognized as infantry, and detachments of about half a battalion each, with advanced parties, march from there towards Kaltfliesz and Wilhelmsthal. Lieutenant C—— withdraws into Allenstein Beechwoods, and thence watches the placing of outposts on Height 131 north of Wilhelmsthal and at the edge of the woods east of Mondtken. Lieutenant C—— continues to retreat before hostile infantry patrols, at first towards Polleicken, and, while riding west of Buchwalder-see towards Gr. Buchwalde, he is fired on from the heights east of the lake, thereby having one horse wounded. At 3.30 p. m., from the grove east of Neu-Garschen, he is able to distinguish hostile infantry establishing outposts close to the village and sending out patrols. Individual horsemen

are visible between Rosengarth and Gr. Buchwalde and near Neu-Garschen.

WHAT DOES LIEUTENANT C—— THINK OF THE SITUATION AT 3.30 P. M., AND WHAT ORDERS DOES HE GIVE?

It is true that Lieutenant C—— has not seen any long columns of troops, and he is not likely to do so. But he will conclude that the discovery of hostile infantry outposts will be just as important for his headquarters. In a maneuver further procedure would be quite simple: a message would be written and sent back by a man on a good horse with orders to follow the easily-found road via Neu-Garschen–Blankenberg–Schlitt to Kallisten, where, if he did not find the regiment, he at least would find ways and means to have the message taken farther. The patrol commander, whose horses have traveled only about 25 miles to-day, mindful of the regulations which specify that every patrol upon obtaining touch with the enemy must retain it, could devote himself to the duty; could further observe the enemy with the object of discovering the bivouac of some large body; also could investigate the state of affairs at Münsterberg; and, after sending a last message late in the afternoon, could, with the consciousness of an energetic performance of duty with good results, take shelter in one of the numerous farm-houses in front of the enemy's position, and the following morning, still having 1 non-commissioned officer and 6 men, could resume his duties with renewed energy.

But he does not find things as smooth as this in time of war. A single trooper surely would not succeed in carrying the message. Even 2 men hardly would succeed. Even sending a duplicate message by two different routes may not be successful and would take 4 troopers. It would be out of the question for the messengers to follow the traveled roads, where they almost certainly would be captured. Presumably,

Kloben and Kallisten are occupied by the enemy, so that the messengers would have to go towards Sackstein or Pittehnen to cross the Passarge. How will they find their way across country through woods and marshes without a map?

These thoughts assail the officer as he, to avoid the next danger—*i. e.*, a hostile infantry patrol—works his way to the western edge of the grove, and, leaving Neu-Garschen to the left, finds safety in the southeast corner of the woods through which the Neu-Garschen–Ankendorf road runs. He is convinced that he alone, with the aid of map and field-glasses, may still be able to get the important message to its destination, and that to accomplish this he will need all his caution and experience and possibly the fighting strength of his men. He debates for a moment whether it would not do to go with but 5 men, leaving the sergeant and 3 men behind to retain touch with the enemy. In this way he would carry out the letter of the instructions of the Field Service Regulations, but only the letter. It simply would be a subterfuge to avoid reproach. The sergeant would be able to accomplish but little. In the midst of hostile cavalry, he would be constantly on the move, seeking for hiding-places, and the little that he might see he would be unable to report upon.

As soon as night fell, observation and reports would cease, and the following morning would not improve matters for the small tired group, which, without a map, would have to depend on information received from occupants of isolated habitations to keep from getting lost.

But possibly 9 men will enable Lieutenant C—— to overcome hostile opposition attempting to bar his way, when 5 men would not suffice. The stronger he remains, the more likely is he to succeed in capturing hostile messengers on their way back.

If Lieutenant C—— is satisfied that he must himself take back the message, and with his whole patrol, he will finally

consider whether he cannot add to it. A knowledge of the extent of the enemy's front would be of great importance, and if he could determine whether or not Münsterberg is occupied by infantry, it undoubtedly would be of decided advantage. The horses, having traveled only about 25 miles, and having been singly watered and fed during the numerous halts, surely are not yet tired out. But it must be remembered that the ride would require more than an hour and largely would be across open country. New and increased dangers would threaten the important message giving information of the hostile outposts at Mondtken and Gr. Buchwalde, and the later it arrives at Mohrungen the less valuable it would be.

This doubt may turn the scale; and, besides, the officer has a right to hope that Troop A, reconnoitering towards Münsterberg–Guttstadt, and the rest of the regiment, have accomplished results that make his work in that direction unnecessary. But it would not be wrong or censurable if his endurance and love of action should induce him to round out his fine day's work by a ride to Münsterberg. If he should conclude to go back at once, it would be advisable (after exchanging the wounded horse for the captured led horse and turning the former adrift as soon as it became bothersome) to go along the eastern edge of the woods which the patrol has just entered, then passing through the northern part to the northwest corner of the same and from here force his way to Kallisten or Sackstein.

Notwithstanding the diversity of instructions given to the patrols we have followed, none of them was decidedly what is sometimes called a "strategical patrol." Even those that went farthest cöoperated with the main body of the troop, which acted as their support and on which they would

fall back. It simply required a varying number of hours to execute their orders, and these did not keep them out until the following day. Possibly Lieutenant C——'s instructions to reconnoiter via Brückendorf towards Jonkendorf–Gr. Buchwalde might be looked upon as passing beyond the sphere of minor into that of great operations of war, and we might look upon his patrol and upon that of Lieutenant B——, sent by Captain E—— from Pittehnen via Freymarkt towards Heilsberg (see page 89), as "strategical patrols"—anyway, the name does not matter; our Regulations do not contain it, and it is merely a handy, easily understood term for a not easily described idea. For there is no sharp line of demarkation between "ordinary" or "small" and "strategical" patrols. But it will pay to examine the conditions under which a patrol-leader would operate in the sphere of the strategical activity of cavalry, considering that theory sets great store by such patrols, which are called "the eyes of the commander-in-chief."

Although there are several successful long-distance patrol rides on record from our campaigns of 1866 and 1870–71, still, German Army headquarters were not informed in time of the movements of the French army on the left bank of the Mosel the 16th of August, 1870, or of the extent of the French line of battle west of Metz on the 17th of August; and the decision to turn to the right, on the left bank of the Meuse, towards Beaumont and Sedan, had to be made before reliable and conclusive information had been received (of the movements of MacMahon's army). Moreover, the Austrian cavalry in Bohemia (in 1866) was not used in a way that would have completely blocked the way of our patrols, and the French cavalry (in 1870–71) practically offered no opposition to German reconnaissance. Therefore, at the time in the field and later in discussions many complaints were heard that our patrols in distant reconnaissances, as a rule,

did not accomplish what had been expected of them. General Goeben, too, as he personally has told me, belonged to these dissatisfied ones. The above-named experiences in grand maneuvers in Germany indicate that, in spite of years of earnest endeavor in time of peace, Army headquarters to-day cannot depend on being furnished with good information by "strategical" patrols.

One of the patrols (so far but casually mentioned in our study) received comprehensive instructions of a strategical nature. A discussion of the movements of this patrol might help to an understanding of the reasons that cause the above-named deficiency.

As early as the afternoon of May 3d, Lieutenant D——, 1st Cavalry, with 10 troopers on selected horses, left Marienberg. He had received orders from the commanding general to reconnoiter in the general direction of Heilsberg–Bartenstein. On the same day he reached Pr. Holland, 28 miles away, rested here a few hours, and started again at 4 a. m. May 4th. At 8 a. m. he arrived at Wormditt, 22 miles away, and reported thence by wire that so far he had seen nothing of the enemy. This information was of no special value to the commanding general, who could have obtained it from the telegraph operator without the patrol. It is true that in the enemy's country, where the telegraph would not be available, this information would have been of some consequence. But it is doubtful if Lieutenant D—— would have sent one of his men to Saalfeld on account of this information. It is more than 31 miles from Wormditt to Saalfeld. Therefore, the messenger would have traveled 53 miles since leaving Pr. Holland and 81 miles since leaving Marienberg, and hardly would have arrived (at Saalfeld) before 3 or 4 p. m. on May 4th. To know that the enemy was not at Wormditt at 8 a. m. would be no criterion for the commanding general as to how matters stood there or at Mehlsack or Liebstadt sev-

eral hours later. Lieutenant D—— had a right to assume that it would not be his duty to reconnoiter this district, lying so near the field of operations of the army—at least, not in so far as it related to matters of minor importance. If he was in doubt on this point, the blame partly would lie in the wording of his instructions, which very properly might have included a statement to the effect that his reconnaissance should be of a general nature only. Reference also should have been made to the intentions of the corps and army commanders, so that Lieutenant D—— could act in harmony with the ideas of the higher commanders, and could send his messages in the right directions. He should have known that the army corps would reach the vicinity of Saalfeld, May 4th, and presumably would march towards Mohrungen on the 5th, if the corps commander could have given this information as early as the 3d. Let us assume that Lieutenant D—— received the additional information at the latest upon his telegraphic inquiry from Wormditt, where arrangements should at once be made to destroy the tape records of telegrams.

In view of the already mentioned requirement of the Field Service Regulations (that a patrol's orders must state clearly what information is desired [see page 33]), it would still seem that Lieutenant D——'s instructions are too general. But if we imagine ourselves in the position of the commanding general, who, at Marienburg, on May 3d, only knows that a hostile army is approaching from the east, we can appreciate the order, to which only might have been added how far telegraphic communication still existed on this day. Even had it been possible approximately to guess where the enemy was on May 2d, his movements for May 3d, 4th, and 5th could not have been foreseen. A more definite order to the patrol—for example, that it should locate the enemy's right flank—would have been an error. It was uncertain whether the pa-

trol would find the enemy's right flank in the direction of Heilsberg–Bartenstein. The hostile army might have kept much farther to the south, so that the enemy would not have been found at Heilsberg or Bartenstein. Again, the enemy might have moved in a northwesterly direction, so that the patrol would have encountered the enemy's front. To this might be objected that it would have been better to let the officer choose his own route, and simply order him to locate the hostile flank. What a difficult task for the young officer and his little group of men! The commander-in-chief himself would have to go to accomplish this. Is hostile cavalry to be regarded as the enemy's flank? Where is the flank in question if the enemy is not advancing on a closed front, but by detachments? Which way should the patrol go if it learns that hostile detachments have arrived at Pr. Eylau? Should these be looked upon as the hostile flank, or be ignored on the plea that presumably they are detached to invest or observe the fortress of Königsberg? We can readily see that the uncertainty of the situation made it impossible for the commanding general on the 3d of May to say any more to the patrol-leader than that he should reconnoiter. It is expected that the latter's messages will form a basis for more definite instructions to be given the cavalry of the army corps. It seems fitting that the commanding general should have sent Lieutenant D—— in the general direction where it was expected the hostile flank would be found, if surmises were correct. In this way he prevented an aimless wandering about of the patrol, and formed a sort of tentacle on an avenue near one flank of the army. Had not the field of reconnaissance of Königsberg included Pr. Eylau, Domnau, and Friedland, doubtless a patrol would have been sent via Mehlsack–Landsberg–Pr. Eylau, but this would not have influenced the movements of Lieutenant D——, which we now shall follow.

It is noteworthy that apparently the commanding general does not expect Lieutenant D——'s explorations to have any influence on the movements of the army until after May 5th. The movements for May 5th certainly will be ordered from Army headquarters, at the latest by the afternoon of May 4th—*i. e.*, at a time when the patrol may have reached the vicinty of Heilsberg, but not yet have been able to send any report. Only in case the patrol should encounter the enemy on the morning of May 4th near Wormditt and be able to send a detailed report by wire, would it be practicable to make any changes in the proposed march of the army for the 5th. If telegraphic communication were not available, then such report probably would arrive too late to change the direction of march of the army on the 5th.

The patrol rested at Wormditt, naturally exercising every precaution. Such duties are made easier in friendly territory, because courageous inhabitants always can be found who are willing to watch from church-towers or hilltops. During this halt Lieutenant D—— made telegraphic inquiry of Liebstadt, Mehlsack, Zinten, Landsberg, Pr. Eylau, Heilsberg, Bartenstein, and Guttstadt. In this way he found out that the enemy had not appeared at Liebstadt, Guttstadt, Mehlsack, Zinten, or Landsberg. But Landsberg reported that communication with Heilsberg had been interrupted since 7 a. m. All this information was wired to corps headquarters. Up to 9.30 p. m. no reply had been received to the message sent Pr. Eylau via Königsberg. The telegraph operator at the latter place stated that he had informed the military governor of the message.

Lieutenant D—— decides not to await information concerning Pr. Eylau. It is evident from the message from Landsberg that he is approaching the enemy, and he might have to wait too long to get news from the governor of Königsberg. He decides to go towards Heilsberg past Frauendorf, but, as

far as possible, to keep off the highway. Therefore, he rides via Thalbach–Kaschaunen. As he omits sending scouts to the edges of woods to save his horses, he does not get an extended view again until he reaches Kaschaunen. He is more anxious not to be discovered or delayed than he is to discover every hostile patrol. He hopes in a way to make good the deficiencies of his reconnaissance by questioning the farmers. Of course he might meet hostile patrols on the wood-roads, but he hopes to avoid being surprised by keeping a sharp lookout to the front and flanks and having the point well in advance of the main body of the patrol. The dense woods would quickly hide him again from the enemy, and his map would help him along.

Nothing has been seen of the enemy at Kaschaunen. The patrol continues on its way south of the Drewenz River, and about 1 p. m. arrives near Bogen. From Height 114, northeast of the village, 5 or 6 hostile troopers are visible at the wind-mill northeast of Raunau.

WHAT ARE LIEUTENANT D——'S REFLECTIONS CONCERNING FURTHER ACTION ON HIS PART?

The officer sent off on a reconnaissance of several days' duration has to consider the conduct of his patrol on meeting hostile patrols, the same as we have seen was the case with Lieutenants C—— and F——. His messages are in greater danger than those of patrols sent out but a short distance, if hostile troopers penetrate between him and his army, for the longer road increases the dangers besetting messengers. "Strategical" patrols, too, can help screen the movements of their army by destroying or capturing hostile patrols; can help to interfere with the enemy's messenger service; and for them, also, the answers of prisoners are of great importance—often clearing up the situation better than prolonged personal observation. It is, of course, necessary that at least one member of such patrol be able to speak the enemy's language.

And yet conditions are different from those of patrols working in a more restricted area. The farther away a patrol is from its army, the harder it is to bear losses incident to engagements, which cripple further activity of the patrol or stop it altogether. Unless it is a question of individual hostile troopers, the easiest and most successful feat of arms will be of no value, but simply will call up a swarm of enemies. As a rule, it seems inadvisable to forcibly penetrate the hostile screen. We know that the screen has wide gaps, and that in field warfare the cloud of patrols, as a rule, passes but once or twice over the ground. Waiting in a good hiding-place until the vicinity is again free from patrols offers better chances, because even a successful fight cannot keep the road to the rear open for messengers. This is more readily accomplished nearer the army by the mutual support of the denser network of patrols. Messengers from "strategical" patrols are always instructed to make use of remote trails and skillful dodging, and always will be exposed to the dangers of the solitary ride within reach of the enemy.

Nevertheless, even this class of patrols, on principle, must not invariably avoid an engagement, and certainly must not let slip any chance to capture hostile messengers. But they must very carefully consider the probable outcome of an engagement, and, in case of doubt, preferably turn aside and continue on their way unseen.

As telegraphic communication between Heilsberg and Landsberg has been interrupted since early in the morning, Lieutenant D—— has not to deal with individual hostile soldiers that might prove an easy and tempting capture, and so he decides, for the present, to wait and watch the Heilsberg–Frauendorf highway. He succeds in fording the Drewenz at a covered spot and in hiding himself in the vicinity of the Nickelsberg.

Should he send back a message?

It is true that the Field Service Regulations state that "as soon as it is certain that the enemy has been discovered a message should be sent";* still Lieutenant D—— has a right to doubt whether he would perform any noteworthy service for the commanding general were he to report the appearance of a hostile patrol at Raunau. It was easy to infer at Saalfeld that the enemy had reached the vicinty of Heilsberg, from the telegram stating that telegraphic communication between Landsberg and Heilsberg had been interrupted. Therefore, the message would not relate anything new, and would cost the officer at least one man. The officer has a right to hope that he soon will be able to report other and more important facts.

After the hostile patrol near Raunau had ridden back towards this village and disappeared, Lieutenant D—— continued his ride via Krug and Workeim to near Neuendorf, where he arrived at about 3 p. m. Nothing was known of the enemy in Workeim. A single hostile trooper is seen trotting along the road from F.† Grossendorf towards Heilsberg; but the intervening marshy meadows interfere with an attempt to capture him. People at Neuendorf state that at various times during the day hostile troopers passed through the hamlet, some going towards Petershagen and others towards Heilsberg. This adds to the probability that detachments of hostile cavalry are at Heilsberg, and Lieutenant D——, remembering the teachings of times of peace, decides to go farther around the enemy's flank if possible, to get a view of the Heilsberg–Bartenstein road, or to find out something more definite from the inhabitants about the enemy at Heilsberg. He reaches Grossendorf Woods (Grossendorfer Wald), but then, to avoid a hostile patrol which appeared at Grossendorf, he went via Jegothen to Gunten, where he arrived at 4.30 p.

*See par. 79, F. S. R.

†Abbreviation for *Försterei*, "Ranger's house."

m., and halted at Height 94. The inhabitants of neither of the two places know anything definite about the enemy; they simply know of a rumor that there is hostile cavalry at Bartenstein and Heilsberg.

From Pr. Holland to Gunten the patrol came 43 miles, and during the past 24 hours it has traveled over 70 miles. Most of the horses are tired out, and a continuation of the ride to-day would completely use them up; therefore, they absolutely need a good rest.

WHAT ARRANGEMENTS DOES LIEUTENANT D—— MAKE AT 4.30 P. M. MAY 4TH?

The estate of Gunten is too extensive to use as quarters for the patrol, because the latter could not properly guard it, and, being at a cross-roads, it might receive sudden visits from hostile patrols. The patrol will be able to rest only at a remote point; the best place would be in the woods south of Gunten, far from the road. Being in friendly territory, where there is no danger of treachery, one of the farms southwest of Borchertsdorf might be used in case of bad weather. Although the nights during May still are quite cool in East Prussia, the officer doubtless will prefer the woods, where, under protection of a sentry-post, the horses can be fed and watered in a creek flowing into the Elm River. Feed would be taken along from Gunten, or would be carried from there after dark.

He now considers it necessary to send off a message, and composes the following:

4 May, 5 p. m.

To Telegraph Station, Saalfeld:

At 1 p. m., while riding from Wormditt via Kaschaunen and Bogen, I noticed 5 or 6 hostile troopers at Raunau. Later I saw a mounted messenger on the Neuendorf–Heilsberg highway; and I went via Jegothen to avoid a hostile patrol that appeared near Grossendorf. Farmers say that during the day patrols have frequently come through Neuendorf, some going towards Heilsberg and some the opposite way. Apparently Landsberg, Heilsberg, and Bartenstein are occupied by hostile cavalry.

D——,
Lieutenant.

How shall the message be forwarded? The condition of the horses and the numerous hostile patrols that are abroad preclude its being sent towards Saalfeld. An effort must be made to reach a telegraph station that still is in communication with the district occupied by our army. The best opportunity to do this seems to be on the Landsberg–Zinten railway. Landsberg, which seems to be occupied by the enemy, must be avoided, and the message sent say from Sangnitten or Arnstein, or even farther north.

In friendly territory, where information from the inhabitants helps out, a single horseman may thus be able to avoid the enemy and get through; and, in view of the small number of his men, Lieutenant D—— may consider it permissible to send but one man, because the message apparently is not of great importance. The messenger will have to go 18 miles or more to the desired telegraph station. Even the best horse would not be able to stand this after the exertions of the last 24 hours. But in the horse-country of East Prussia it ought to be possible to find a suitable saddle-horse, even after the drain upon it for war purposes. Otherwise, the sending of the message must be deferred until the messenger's horse has rested sufficiently. The day's experience will induce Lieutenant D——, if there is still an opportunity, to take a horse from the owner of the estate or from some farmer, as a precautionary measure, giving a receipt therefor, and have it taken along as a remount together with the horse the messenger leaves behind. A reminder that the enemy surely will requisition all serviceable horses, and probably without giving receipts, may induce the owner to give up a horse more readily. If the spare horse becomes troublesome, it can be let loose at any time.

The messenger will be told that after seeing that the message is sent by wire he must try to reach the army corps, going in the general direction of Mohrungen, and calling on

village authorities to supply him with a new mount whenever necessary. He is to keep the original copy of the message until he reaches his command again, unless he should be obliged to destroy it on account of imminent danger. Anything of importance that he might learn of the enemy during his ride he is to add to the telegram over his own signature. Under this heading would come any information as to whether or not Landsberg is occupied by the enemy.

It might be added, concerning the wording of the message, that the address, 'Chief of Staff, 1st Army Corps," is purposely omitted; likewise the name of the place where Lieutenant D—— is and route he expects to follow after resting. It is intended that the message should disclose as little as possible, should it fall into the enemy's hands. The scantiness of information received from inhabitants of the country by patrol-leaders belies the experience of time of peace. While during maneuvers the appearance of a body of troops at Heilsberg would be known in a couple of hours in all the surrounding habitations, Lieutenant D—— obtains nothing but unreliable rumors, except in the villages where the enemy actually has been seen. During maneuvers, travel on the country roads becomes more active than in ordinary times. Wagons, cyclists, horsemen travel from place to place. Not a single movement of troops escapes the curiosity and interest of the inhabitants, and a wide-awake patrol-leader often can better inform himself about the march of a hostile body of horsemen from the statements of country people than if he had seen it himself; but it is otherwise in time of war. The townsman and the countryman, the tradesman and the official, all are kept home by duty or apprehension, unless a panic should drive them into the woods. Women and children, who during maneuvers are attracted in multitudes by the noise of arms, hoof-beats, drum and trumpet, in war hide themselves in excessive fear of the approaching enemy of their coun-

try. Therefore, even in friendly territory, patrol-leaders must be prepared to find out much less about the enemy than they do during time of peace.

Granted that the messenger can be furnished a good horse of fair gait—a badly-broken, obstinate brute cannot be used in this case, even by an excellent rider—he hardly could leave before 5.30 p. m. He would give Landsberg a wide berth, possibly going via Eichhorn, Worienen, Schönwiese. Probably the telegraph stations at Sangnitten and Arnstein have been abandoned, even if the enemy has not yet arrived there. He probably will have to go as far as Zinten, a distance of 25 to 28 miles, before finding an office that is still open, and it will be late in the evening before the telegram is received at Saalfeld.

Lieutenant D—— will not get much information in his hiding-place during the remainder of the afternoon and evening. If he wishes to remain concealed, he must remain quiet. Not until after dark will he try to obtain information from neighboring farms through countrymen. It is true that these people thereby would risk their necks, but doubtless some can be found who are willing to do this service, even if they did not go as far as the enemy's lines.

In this way Lieutenant D—— learns that Heilsberg actually is occupied by the enemy, and that from Settau, where a hostile patrol was seen during the day, several troops of cavalry were seen, which early in the evening rode through Roggenhausen towards Heilsberg. Nothing had been seen of the enemy at Borchertsdorf.

WHAT ARE LIEUTENANT D——'S FURTHER INTENTIONS?

Lieutenant D——'s orders direct him towards Bartenstein, and the rumor seems plausible that hostile cavalry had reached that point, presumably the main body of the advanced detachments known to be at Landsberg and Heils-

berg. Therefore, Lieutenant D—— takes Bartenstein as his next objective. The endeavor to remain on the outer flank of the enemy, as well as solicitude for his messenger-route (which must continue towards telegraph stations situated at the north or northwest), make it desirable to remain north of the Alle. And, not to run into the arms of hostile detachments on the straight and convenient Bartenstein–Reddenau road, the officer intends to cross this road and for the present ride past Albrechtsdorf towards Pilwen. At Albrechtsdorf he may be able to get more definite information about hostile detachments supposed to be at Landsberg; and there, as well as at Pilwen, something definite may be learned about Bartenstein. He wishes to cross the Bartenstein–Albrechtsdorf road before daylight, and therefore orders the patrol to start at 1 a. m. May 5th. A countryman on horseback is taken along as guide. There is no necessity to send back any further message. By 1 a. m. the horses have rested 8 hours, and doubtless have had an abundance of feed. And presumably the men were passably well provided for, as food could be obtained from neighboring farms and from Gunten at night. Of course, the guard and the officer obtained very little rest, but a few hours' sleep in the grass are sufficient to provide new strength.

At a farm near Albrechtsdorf the officer learns that about 15 horsemen passed the place the day before, going towards Landsberg. After reaching Pilwen at about 3 a. m., where nothing is known of hostile troops being in Bartenstein, the patrol cautiously continued its reconnaissance, and found out that the town actually was not occupied by the enemy. In the outer houses the officer learns that yesterday afternoon the hostile 5th Dragoons, coming from Schippenbeil, passed through the town, towards Heilsberg. Since then only occasionally had single hostile troopers passed through the town. The mayor, who had been sent for, verifies this report, and

adds that yesterday afternoon several baggage-wagons passed through the town and that on the order of the hostile commander, who spoke German, he had sent ten wagon-loads of oats to Schönbruch and Langheim (near Korschen), respectively, where they were to report to army officials. The mayor had heard nothing more about the grain. He did not know how matters stood in Schippenbeil, but yesterday evening there was no enemy in Legienen, Wehrwillen, Sandlack, or Plensen. Telegraphic communication with Pr. Eylau and Korschen has been interrupted. The telegraph instruments of the Postal Telegraph and of the railway station of Bartenstein have been destroyed.

WHAT ARE LIEUTENANT D——'S REFLECTIONS AND DECISIONS CONCERNING FURTHER ACTION? (It is now about 4.15 a. m.)

The justified assumption that the enemy's main body would be found at Bartenstein has proven erroneous. In time of war things often turn out differently from what was anticipated. Were there a large hostile force at Schippenbeil, there would be more traffic through Bartenstein. But it may be assumed that hostile troops are at Schönbruch and Langheim, for it is improbable that army officials whould be sent to these points in hostile territory without being accompanied by troops. The direction whence they came to Schönbruch will give a clue to the enemy's intentions, and this may be more easily found out on the Schippenbeil–Schönbruch road than at Schönbruch itself, where hostile outposts certainly would prevent near approach. As it is only about six miles to Langanken, Lieutenant D—— will not send a message until he has reached this point. Possibly he will find out something about Schippenbeil at Langanken.

At 5.45 a. m. the patrol approaches the highway at Langanken, on which there is a convoy of army and civilian wag-

ons, guarded by dragoons moving towards Schönbruch. Lieutenant D—— counts 30 wagons. He lets them pass and they disappear in the woods north of Woduhnkeim; then he sends a party to Langanken. Here he finds out that yesterday a hostile regiment of dragoons, coming from Schippenbeil, passed by and halted for the night north of Schönbruch. Its train, which has just passed by, halted for the night at Langanken and Woduhnkeim. A sick officer, unable to travel, remained at the Langanken estate. He understands some German, but refuses to give any information. He belongs to the 4th Dragoons. His servant hid himself upon the approach of our patrol, and cannot be found.

Nothing is known at Langanken about Schippenbeil.

To find out something more definite about the whereabouts and line of march of the hostile cavalry, Lieutenant D—— sends 2 troopers towards Gahlkeim and 2 others towards Schippenbeil, while he, with the remainder of his patrol, conceals himself in a grove west of Langanken.

By 8.30 a. m. it is learned that the hostile cavalry regiment left Schönbruch at 5 a. m. and marched towards Domnu along the highway, and that the train is following it on this road. The troopers sent towards Schippenbeil were fired upon from the northwest exit of the town, but they, as well as the two sent to Galkeim, returned unharmed. The inhabitants of Thorms stated that, with the exception of a ford at Hoschenen, there is no place of crossing over the Alle between Bartenstein and Schippenbeil.

WHAT ARE LIEUTENANT D——'S FURTHER ARRANGEMENTS AND INTENTIONS?

The hostile regiment of cavalry either is marching towards Königsberg or is making so wide a circuit around the flank of our army that it is useless to follow it. The important thing is to find the hostile columns of infantry, and

it is questionable if the patrol will do so in the direction it has so far gone. The Schippenbeil–Bartenstein road, on which the hostile 5th Dragoons marched yesterday, apparently is deserted to-day. The road south of the Alle has not yet been seen, nevertheless the march of a column there would have become evident: Bartenstein would not have been found unoccupied by the enemy, and at Schippenbeil more would have been noted than the whistle of a few bullets fired by concealed men. And if hostile columns were approaching Schippenbeil from the east, their advance detachments already would have been felt. These points are not conclusive evidence, but they are indications which, though not proving anything mathematically, when considered together have a certain weight. Positive information can be obtained by riding a few miles farther east. The Alle probably can be crossed at Stolzenfeld or Massaunen; and even information that the enemy was not encountered on the roads east of Schippenbeil will help clear up the situation for headquarters.

But military instinct warns the patrol-leader against following this plan. If, contrary to expectation, hostile infantry columns should be on the march to Schippenbeil, they hardly could get any farther than Bartenstein to-day, and to-morrow but little beyond the line Landsberg–Heilsberg. But only on this line they become of importance to our army, whose left wing to-day, May 5th, is expected to reach Mohrungen. Therefore, if they find out this evening at Mohrungen that up to this morning only the hostile 5th Dragoons have come along the Schippenbeil–Bartenstein–Heilsberg road, this in itself will form a basis for judging the situation.

If the patrol clings any longer to the Heilsberg–Bartenstein–Schippenbeil road and its eastern prolongation, it may sacrifice important affirmative information in favor of negative information. Should the 5th Dragoons simply be a flank guard, and should the enemy's main columns already be march-

ing on the roads through Bischofstein and Seeburg, there would be danger in the delay. Information of this could be sent promptly enough, as the heads of these columns might encounter our own as early as the 6th. But if the enemy is not on these roads, timely information of this fact probably will be more welcome than any news from the district east of Schippenbeil. To be sure, many doubts still remain. If the heads of the enemy's main columns have not yet advanced as far as the line Schippenbeil–Bischofsburg, the patrol, in going south, might get in front of the hostile army and lay itself open to the charge of neglecting the important duty of locating the enemy's flank. And Lieutenant D—— can safely assume that his regimental commander will have the district east of Guttstadt reconnoitered, so that his own work in the vicinity of Bischofstein and Seeburg would be superfluous or of minor importance. And, finally, the officer cannot underestimate the obstacles there would be to the forwardlng of his messages should he go south, for in this case he would give up the use of the telegraph.

The decision requires such a deep insight into the requirements of greater operations of war that it can but seldom be found in officers of limited experience. Prudence, therefore, demands that commanders-in-chief should not set their expectations too high, for many a patrol will fail simply because it is unable to hit upon the right thing to do in such complicated situations. And yet it is very seldom that these "strategical" patrols, these "eyes of the commander-in-chief," can be explicitly told just what to do. They are permanently thrown on their own resources concerning the objective of their trip. No instructions, no matter how thoroughly thought out or carefully weighed, given Lieutenant D—— on the 3d of May, could have simplified the weighty decision for him that he must now make—a decision that finally results in favor of turning south, because, reaching the flank of the hostile

columns, he would be able to see much more than would the patrols sent from Guttstadt against the heads of these columns.

The patrol must ford the Alle at Hoschenen, and presumably at Louisenhof will be able to find out something more definite about the garrison of Schippenbeil. Then the patrol will ride to Gr. Schwansfeld.

But before crossing the Alle a message must be sent to the commanding general. What was discovered early this morning is of sufficient importance, and this may be the last opportunity to use the telegraph line. It is not advisable to wait until after crossing the stream before sending the message. It is not expedient to send single horsemen through a swollen stream, and at Bartenstein they might unexpectedly run into the enemy without being able to get away.

What shall the message contain and how shall it be forwarded?

Near SCHIPPENBEIL, 5 May, 9 a.m.

To Telegraph Station, Saalfeld:

Yesterday at noon the hostile 5th Dragoons coming from Schippenbeil passed through Bartenstein towards Heilsberg. At 4 a. m. to-day there was no enemy in Bartenstein and so far no other troops have followed the 5th Dragoons. Yesterday the mayor of Bartenstein was forced to send 10 wagon-loads of oats to Schönbruch and Langheim, respectively.

The hostile 4th Dragoons camped last night at Schönbruch whither it marched from Schippenbeil. At 5 a. m. to-day it left for Domnau. Several shots were fired at my men from Schippenbeil. No troops were visible there and, therefore I think the place contains but few of the enemy.

I shall not follow the hostile cavalry that apparently is marching towards Königsberg, and, as apparently hostile columns will not use the Schippenbeil–Bartenstein–Heilsberg road, I shall turn south towards the roads passing through Bischofstein and Seeburg.

D——,
Lieutenant.

It is unlikely that a telegraph office will be found in operation in Pr. Eylau or on the Pr. Eylau–Königsberg railway. This district is too near the 4th Dragoons. Besides, a message sent in that direction easily might fall into the enemy's hands. It is more promising to have the messenger follow the same route as did the one of yesterday—viz., towards the

Landsberg–Zinten railway. The wooded country between the two lines of railway will favor the messenger's slipping through. But the way is long and hard to find. Too many obstacles threaten a single horseman, and the importance of the message justifies sending 2 men, even though this will reduce the patrol to 7 men.

Will the message escape the danger of the road? Even if the messengers are given remounts, or if such are obtained during the trip, these are not accustomed to great exertions, and easily may give out. It is 31 miles to Zinten by direct route; who knows what detours the messengers will have to make, or number of wrong roads they will take, as they must avoid the highways, keep to the woods, and solely depend on statements of inhabitants, who seldom can give accurate information about roads to distant points. The troopers for nearly two days have been engaged in very fatiguing nervous work and constantly in the saddle, except during short pauses. Weariness and the opportunity to rest and refresh themselves *en route* will delay the ride, so that the messengers hardly will arrive at Zinten before 4 p. m.

The hostile cavalry at Schönbruch surely sent a detachment as far as Pr. Eylau, and the latter naturally will cut off telegraphic communication to-day between Königsberg and the western parts of the province. If, as we know, the railway and telegraph were destroyed at Wormditt on the evening of May 4th, we may certainly expect the same thing to happen to-day at Zinten, which is only 16 miles from Pr. Eylau. Therefore, it cannot be expected that the message can be sent from Zinten, and it would be useless to make further search along the road either towards Mehlsack or Königsberg. The happy thought to ride to Heiligenbeil might accomplish the desired object. Will this saving thought occur to the two troopers, or will Lieutenant D—— have sufficient forethought to direct them to this point before their departure, in case

they find the telegraph line no longer working at Zinten? It is only too likely that the message either never arrives at headquarters of the 1st Army Corps or arrives so late that the chief of staff will place it with the retained papers marked "Obsolete." But granted that by luck or chance it reaches headquarters at Mohrungen on May 5th, whither it certainly would be forwarded from Saalfeld, it could hardly influence the arrangements made at Army headquarters for May 6th. It would be of but slight advantage even for the commanding general, 1st Army Corps, no matter how important it may have seemed to the sending officer.

The general has the right to assume that larger bodies of hostile cavalry will not appear on his left flank on May 6th, and, if in addition he can feel sure that there are no hostile columns approaching Heilsberg from Bartenstein, he still does not know whether such columns have reached Heilsberg from Bischofstein. Notwithstanding every exertion of horse and rider, and the leader's unusual caution, and unusual good luck which saved the patrol from mistakes and errors, false information and the bullets and sabers of the enemy, and the advantage of operating in friendly territory, and the favorable season, good weather, good roads, the faithfulness of telegraph operators in clinging to threatened stations, and the supply of suitable horses for the messengers—in short, notwithstanding a succession of favoring incidents, all of which could hardly be expected to happen, the message that finally reaches its destination contains nothing that could point out the way to Army headquarters.

If we assume that the goddess of fortune further favors Lieutenant D——, he may be able to ford the Alle without accident at Hoschenen, and learn at Louisenhof that Schippenbeil is occupied by a small detachment of cavalry, a sort of connecting-post, and that the place was occupied the night of May 3d–4th by the 5th Dragoons, while the 4th Dragoons,

coming from Romsdorf, marched through the town May 4th, going towards Schönbruch. About noon the patrol may reach the Bartenstein–Langheim highway at Gr. Schwansfeld, and find out that so far nothing but patrols have passed over it. The further information that the railway center, Korschen, has been occupied by the enemy since May 3d, will save the patrol-leader from the erroneous assumption that on the 5th, at Schwansfeld, he still is ahead of advance detachments of the hostile army, and therefore must return to the Bartenstein – Schippenbeil road. After obtaining some rest, which is much needed after the 30-miles ride of to-day, he may be able to find out by 4 or 5 p. m. whether or not, and from what direction, hostile columns have come to Bischofstein.

In either case the news would be of great value to the commanding general of the 1st Army Corps, although no change could be made in the orders issued for May 6th. But how difficult it becomes to forward the message! The telegraph stations that still are in operation are so distant that it would not pay to look for one of them. The remaining strength of their horses must carry the messengers back to within reach of our troops. If the enemy has not marched through Bischofstein, the effort can be made to send the message directly back via Blumenau–Reichenberg–Sperlings–Gronau–Pittehnen. Otherwise, it must be sent in a wide circuit northwards, possibly crossing the Alle at Katzen, as hostile detachments surely would have possession of the bridges at Heilsberg.

The patrol has covered more than 37 miles to-day, over 140 miles in the last 48 hours, and now from 35 to 50 miles more are required.

Even if the messengers should be fortunate enough to find remounts, it is too much to expect that they would find their way, going the long distance through an unknown region, and also escape from the midst of hostile cavalry. The

attempt would be absolutely hopeless on their own overworked horses.

If our imagination carries us a step farther on the route that Lieutenant D—— has mapped out for himself, on the supposition that he will find Bischofstein unoccupied by the enemy, we possibly shall see him the evening of May 5th—after a 50-miles ride that day and 125 miles from Marienburg, mostly traveled across country with many a detour, frequently going at a rapid gait, and under constant nervous strain—opposed by hostile infantry outposts; or at Lautern, watching hostile wagon-trains pass by.

At the same time we shall see him in despair at not being able to send back a report in time of what he has seen.

Thanks to good luck and his perseverance and prudence, he has succeeded in carrying out the ideal requirement of passing around the enemy's flank and through the latter's cavalry screen to the flank of his main columns before the main battle is fought.

But of what use is this to the commander-in-chief, whose forces now have approached within a day's march of the heads of the hostile columns, which presumably have reached the Alle.

The Army Corps must have received their orders some time ago for the coming day, which will lead them against the enemy and decide the rôle they must play in the coming battle. And yet there lie between the patrol and its nearest outposts 30 to 40 miles, two rivers, and the entire zone of the hostile reconnoitering and protecting force. What a slight chance there is to overcome these obstacles, even by the forenoon of May 6th!—and by that time the information will have been overtaken by the events it foreshadowed, and, in the din of battle, will be relegated to the scrap-heap.

The officer was not confronted by adverse circumstances. We are satisfied that fortune rode at his side. And we cannot reply in extenuation that he took the wrong road and

thus took too much time. But, on the contrary, we can confidently assert that he acted judiciously, and, guided a little by me, took the right direction a little more promptly than if he had been left entirely to his own inspirations.

How many patrol-leaders would have followed the hostile cavalry that was discovered near Schönbruch; how many would have gone east beyond Schippenbeil; how many would have gone from Schippenbeil towards Korschen!

There is nothing unusual in finding hostile cavalry from 12 to 15 miles beyond the flank of an army. Moreover, it was fortunate for Lieutenant D—— that this flank guard consisted only of cavalry. And he did not proceed in a leisurely manner, but spared neither horse nor rider. Notwithstanding the progress made by our cavalry in long-distance and endurance rides, and however great may be the number of miles that officers and non-commissioned officers now and then have ridden on good horses, the number of voices is increasing that warns against overdoing and illusions. Quite a number of horses failed to come up to expectations or succumbed before reaching the goal.

If we consider that a troop-horse already at the time of mobilization and concentration is subjected to unusual exertions, long journeys by rail, etc.; often is poorly sheltered and fed at irregular times; that besides rider and accouterments it must carry a heavy pack; and that even in a troop of selected horses we can count only on average results where the weakest sets the pace, we must look upon Lieutenant D——'s ride as an unusual achievement that but seldom would be possible during a long campaign.

The indifferent success of the patrol was not due to mistakes of the leader or his men, but to the difficulties of the task, which are emphasized in the example we have minutely followed. Had patrols been sent from Marienburg towards Guttstadt and Landsberg as well as via Heilsberg–Bartenstein,

the result would have been practically the same. The patrol sent through Guttstadt would have met the hostile advance detachments and would have been driven back, the one sent through Landsberg simply would have been able to locate the hostile cavalry marching towards Königsberg. As things turned out, only Lieutenant D——'s patrol was so situated as to get a glimpse of the movement of the hostile army, and therefore a discussion of its experiences was the most instructive.

Although Lieutenant D—— had to overcome many difficulties, they don't compare with the obstacles that are met while reconnoitering in the enemy's country. How many expedients available in a friendly territory are denied the patrol-leader upon crossing the boundary! He must find his way with a poor map or possibly without any. It becomes more difficult to understand the inhabitants—is practically impossible for a single man—and the inhabitants' statements concerning roads and the enemy can be accepted only with misgiving, even if the population is not wrought up and guerrilla warfare does not threaten the life of individual men.

No habitation should be entered without extreme caution; only force will procure food for men and horses; no place of concealment is safe, because treachery lurks everywhere. In friendly territory the people freely give information about the enemy to the reconnoitering cavalry; in the enemy's country very little that is true and much that is false will be heard, and no telegraph office will be found outside the field of operations of your own forces to assist in forwarding messages.

To properly appreciate the increased difficulties, I would, in conclusion, call the attention of my patient readers to the hostile patrol that spent the night of May 4th–5th at Wormditt (see page 28).

This patrol presumably was sent from Schippenbeil early on May 4th, with instructions to destroy the Seeburg–Landsberg railway near Heilsberg and the railway between Wormditt and Mehlsack. After completing this work, it presumably will be expected to reconnoiter via Pr. Holland towards Marienberg–Saalfeld, as the detaining of troops on the Vistula (Weichsel) probably has not remained a secret. Possibly it also has orders to cut the railway farther west.

The patrol's orders are so important and carry it so far into hostile territory that it will consist of at least 2 officers, 2 non-commissioned officers, and 20 men; of these, 1 officer and 1 non-commissioned officer speak German a little. As the army intends assuming the offensive, and later expects to make use of the railways, it cannot be the intention to completely destroy the railways, but simply to block them for a few days, so that technical troops can repair damages in a short time. Therefore, it will be sufficient if the patrol has a number of dynamite cartridges, so it can destroy rails and switches. As 1 cartridge is sufficient to destroy a rail, 40 cartridges would enable the patrol to do considerable work. Therefore, each man must carry 2 cartridges, for which room can be made by leaving behind other articles of the pack; or 2 led horses might be loaded with the cartridges, thus furnishing valuable remounts in case of necessity, although they might somewhat delay progress across country. Naturally, the patrol must destroy all telegraph lines, and is equipped with instruments to tap the line.

At Bartenstein and Heilsberg the patrol found the telegraph offices abandoned, so that there was no chance to intercept any messages. At the Heilsberg railway station the patrol commander limited himself to destroying two railway switches, but consumed some time in destroying neighboring telegraph offices. Neither in Heilsberg nor in Bartenstein

could the telegraph instruments be found, as they had been removed.

Late in the afternoon, after a ride of about 50 miles (including side trips), the patrol arrived at Wormditt, and surprised the telegraph offices in the town and at the railway station. The two German-speaking members of the patrol (an officer and a non-commissioned officer), who also know how to telegraph, will have tried to utilize the telegraph line, and force the operator to make inquiries in various directions. But it is hardly to be expected that this ruse will succeed under present conditions. The nature of the inquiries would arouse suspicion, and the results are more likely to mislead than enlighten. And even listening to messages coming over the wires would not lead to any important results, as care would be taken not to send valuable news to outlying stations. At the most, Saalfeld or Maldeuten might ask Wormditt for news about the enemy. This would be dangerous only in case, as in time of peace, the imposing title of the sending authority adorned the heading of the telegram.

The situation of a small detachment of horsemen in a large hostile settlement is endangered by a prolonged stay and the keeping up of telegraphic communication, which can be but imperfectly controlled, and easily, by some pre-arranged signal, may reveal the presence of the detachment. Therefore, efforts to get information over the wire will soon be stopped and the instruments be destroyed. Searching the retained copies of recently-received telegrams, which the operator may be forced to translate under threat of death, and seizing the letters and newspapers found at the post-office, might reveal valuable information; but this would be very tedious work for one only superficially versed in the language of the country. Nevertheless, during the night of May 4th–5th, the patrol in this way might discover something about the detraining of troops at Marienburg on May 3d. This informa-

tion might reach Heilsberg the morning of May 5th, and by noon of the same day the higher commanders, supplementing similar information received from other sources.

In destroying telegraph lines one thing must be remembered by an isolated patrol, the neglect of which might abruptly end its career: Interference with a line will soon be noticed by the neighboring stations and will be reported by them to stations farther back, so that any opposing troops that may be near at hand can receive the news and come to the rescue. Therefore, prudence dictates that the line be destroyed in several places to increase the space in which the enemy must hunt for the offenders and make it more difficult for him to find them. The railway demolitions at the Wormditt station will be more extensive than at Heilsberg, and will require at least 8 or 10 cartridges.

An undisturbed night's rest cannot be expected at Wormditt. It was a mistake that the patrol remained there. It should have left the place as soon as it had accomplished its object, and spent the night at some isolated spot. But possibly it was delayed by its efforts at the telegraph office and the investigation of mail-matter. It also was a mistake for the patrol to ride along the Wormditt–Aiken highway early on the 5th; but possibly the patrol was forced to do this by the darkness and the absence of a good map, which in the enemy's country cannot be replaced by information obtained from the inhabitants.

The patrol, leaving at 1 a. m., with horses fairly rested, and cautiously working its way past habitations, at 7 a. m. reaches Pr. Holland, after successfully avoiding several hostile troopers, and finds the town and railway station occupied by hostile infantry. It is doubtful if the patrol will learn that the garrison consists of organized militia (see page 10). At any rate, considerable time will be consumed in reconnoitering the town; and in the attempt to pass to the north and south of

the town it is discovered that the entire line of railway is guarded. It will not be until 9 a. m. that the patrol-leader will be able to send back a message concerning the situation at Pr. Holland. The messenger has to go more than 30 miles to reach Guttstadt. His horse, after 5 or 6 hours' rest at Wormditt, has traveled over 50 miles and the day before traveled about 50 miles, or over 100 miles in a day and a half. It will be 5 or 6 p. m. before he can reach Guttstadt, going the shortest way—*i. e.*, via Liebstadt, and we know what dangers threaten on the way, should he find it. As the higher commanders probably are not in telegraphic communication with the advanced cavalry, the message will not be received by them until late at night on May 5th, and it might confuse instead of enlighten them, should the patrol not have discovered that the garrison of Pr. Holland consists of organized militia.

If this patrol, in its efforts to locate and turn the hostile left flank, makes a circuit to the north towards Elbing, its further efforts would be in vain. Should it break through the line of railway guards south of Pr. Holland, to get a glimpse behind the screen of organized militia, it is doubtful if any messenger would succeed in repassing the line. Only in case it turned south towards the road between Maldeuten and Mohrungen is there any prospect of a profitable reconnaissance, although the flank guard of the 1st Army Corps would interfere with the patrol's activity. But it would be phenomenal if information, say of blue outposts being established at Steinsdorf, Rollenau, and Wiese, should get through the district covered by the 1st Cavalry, or, passing around this via Wormditt, should reach headquarters before the morning of May 6th. And, then, what would have been gained? Considering that the commander-in-chief had learned that blue cavalry had been encountered between the Alle and the Passarge during May 5th, and blue patrols had appeared in front of his infantry at Jonk-

endorf and Gr. Buchwalde, he will not be surprised to learn that blue infantry was found at Mohrungen on this day, and only positive information that the enemy did not appear on the Pr. Holland–Liebstadt road during the afternoon would justify him in concluding that the flank of the blue army was at Mohrungen. Even if the message gave conclusive information on the subject, no changes could be made in the movements of the army, which would have to proceed in accordance with orders formulated the day before. Only detailed orders for the troops on the flank might be changed by it.

Let us assume a more favorable case for the patrol—one on which regulations and theories greatly count—viz., that the patrol, making a wide circuit around the flank, is able to watch the march of hostile columns. Let us imagine that the organized militia on the Maldeuten–Elbing railway does not exist, and that the way is open for the patrol via Pr. Holland to the west. Let us even assume that the patrol received information at Pr. Holland that obviates a groping about and saves long detours, so that, crossing the overland canal (Oberländischen Kanal), it reaches the vicinity of Gr. Arnsdorf as early as 10 a. m., and discovers the 1st Army Corps marching on the Saalfeld–Maldeuten road—which, of course, presupposes criminal negligence on the part of the Army Corps. The distance traveled from Wormditt was from 35 to 40 miles, and the messenger would have to cover about 45 miles on unknown roads back to Guttstadt, if he wishes to avoid the dense zone of protection of the 1st Army Corps. When will he arrive? when will headquarters, located possibly at Wartenburg or Bischofsburg, receive the message?

The enemy would have succeeded no better than the blue force in sending out several "strategical" patrols to clear up the situation on the northern flank. A patrol coming via Liebstadt either would have been forced on to the route of the one whose fortunes we have followed, which came via Wormditt,

or it would have met the 1st Cavalry; and a third patrol, coming via Mehlsack, would have obtained nothing but negative results. Only by the rarest of good luck might it have happened to catch an important message on the Mühlhausen–Braunsberg telegraph line. But even such a message would have been belated in reaching Wartenburg or Bischofsburg.

It might be objected to the "situation" assumed in the foregoing study, and the conclusions drawn as to the results of patrols working over an extended territory, that there was not enough room allowed for strategical reconnoitering; that both parties should have sent out their patrols on May 1st or 2d, and not as late as May 3d or 4th. Whoever takes the trouble to carefully examine the case will find that the prospects would not materially change for either party. The patrols simply would encounter the opposing cavalry one or two days earlier, behind which the main columns of the army would still be able to make considerable lateral movements; the messenger routes would become longer and more dangerous; the powers of horse and man would be more greatly taxed; and all too soon the small band would melt away, whose connection with its army would constantly become more precarious, and whose conduct would become more difficult the farther it advanced.

Should Lieutenant D——'s blue patrol reach the vicinity of Schippenbeil the morning of May 4th instead of May 5th, it would come within reach of the 5th Dragoons, who remained there the night of May 4th–5th. Should the patrol succeed in avoiding the 5th Dragoons, it might encounter the 4th Dragoons, who later turned off towards Schönbruch, and, to definitely ascertain the direction of march of the latter, the patrol might have to tarry in observation until the morning of May 5th, so that no time would have been gained for the reconnaissance of the roads to the south. However, if a lucky inspiration sent Lieutenant D—— to the north more promptly,

he presumably would have met hostile patrols and flank guards on the afternoon of May 4th in the vicinity of Bischofstein that would have prevented further insight on this day, whose advance to the Alle on May 5th, however, would have enabled him to penetrate beyond Bischofstein to the Lautern–Seeburg road. A message received at the headquarters of the blue army on the morning of May 5th, concerning hostile advance troops at Bischofstein, in no wise would have cleared up the situation, as everything would have depended on whether the columns in rear of them would have marched to Seeburg or Heilsberg on the 5th.

Of course, Lieutenant D—— could not have guessed this on May 4th, and could not have transmitted this important information any earlier than the morning of May 5th, which would have been too late to use as a basis for the commander-in-chief's decision for May 6th.

In the same way the unchangeable laws of time and space would have prevented the hostile patrol sent via Wormditt (had it not reached this point on the 4th, but as early as the 3d or 2d of May) from sending its commander-in-chief information that would have removed all doubt and have informed him on the 4th or 5th what roads the hostile columns would follow on this day, so that he could have regulated his own movements accordingly. Even if the patrol on May 4th had discovered blue cavalry at Maldeuten or infantry outposts near Saalfeld, and even if this information miraculously had been sent back the 68 miles to Bischofsburg in time to reach headquarters on the evening of May 5th, he never would be able to guess whether the enemy on the 5th would march to Mohrungen or Liebstadt, and whether on the 5th the flank column of the blue army would not appear on the Pr. Holland–Liebstadt road.

RETROSPECT.

This clipping from the life of the cavalry service does not begin to exhaust the variety of situations constantly presenting themselves in surprising shapes to those called upon to decide and act. The situations are very different for reconnoitering cavalry when the army to be screened is engaged in a flank march, or a retreat, or is awaiting an attack in a prepared position; or in minor warfare. And the customary method of having the mass of cavalry several days' march ahead will be greatly changed if, before the beginning of hostilities, both armies concentrate in the immediate vicinity of the frontier.

It was not the object of my work to devise rules of conduct for all these cases, to which might be added a great many others, such as operations in a mountainous country, in desolate regions, in winter, besieging and defending large fortresses, etc. I simply aimed to assist in coming to a correct decision under various conditions; and the discussion of my simple "special situation" will show what great demands the reconnaissance service makes on the capacity of troops, the intelligence, energy, and endurance of leaders as well as of individual troopers. Judicious deliberation and boldness tempered by caution are the guiding stars of a cavalryman, who always must have a remedy at hand, scent danger from afar, whose sharp eye must see for miles, and whose nerves must never relax, if he wishes to retain his aim. The best precepts and theories fail if practice and experience do not hold sway.

There is room for only a few noteworthy hints of a general character.

The Field Service Regulations state that the strength of a patrol will depend on circumstances,* and that single men

*See par. 74, F. S. R.

or a small group of men are best for purposes of observation only.

What has gone before shows that an officer's patrol sent to a great distance must not be too small, otherwise it would soon have to discontinue its messenger service, and its explorations would be useless. As we have seen, it must have a certain fighting power and must be able to furnish reliefs for guards at night. On the other hand, there is a demand that details be economized to avoid scattering the strength of a force and insuring superiority of numbers at the decisive point. Our study will have demonstrated that important patrols cannot get along with 5 or 6 men, and that even 10 men seldom will suffice.

Lieutenant F——'s valuable message of 7.35 a. m., reporting the presence of assembled hostile cavalry at Glottau (see page 56) was lost. Sent via Sackstein, it presumably fell into the hands of the hostile patrol which Lieutenant F—— discovered early in the morning near Lettau, and which he allowed to pass unmolested, although its defeat was practicable. The same patrol probably also intercepted the message of Lieutenant F——'s lance corporal who was sent to Sackstein; and we know that it delayed Captain E—— for some time near Wuchsnig. Who knows what it saw and reported from Teufelsberg, where it doubtless viewed the country. It is true that Lieutenant F——'s message was carefully worded, but if it could not be destroyed, it still would reveal a number of noteworthy things—among others, the number of the blue cavalry regiment.

On the other hand, we see considerable advantage resulting from Lieutenant C——'s fight near Kämmersdorf (see page 62). It assured him a clear road to the front and for some time a safe messenger-route to the rear. It for a while stopped hostile reconnaissance in this vicinity, and superior

authority probably derived some advantage from questioning the prisoners.

Although these two examples may be objected to on the plea that they owe their existence to the imagination and bias, still they may serve to recall other cases from maneuvers and kriegsspiel, and thus clear up matters. In my opinion, the seriousness of war does not justify a turning aside, advocated by theory, that endangers the messenger service and freely permits a hostile patrol to get a view of our columns.

Our troopers not only should have recourse to arms when forced to do so, or when fortuitous circumstances suggest this course, but they should systematically make life a burden to hostile patrols and to shrewdly and cunningly devise ambuscades for them. Reconnaissance service will be a very different affair if danger threatens the hostile advance detachments from behind every bush, and if the superiority of our patrols in minor warfare forces the enemy to hold back from our front.

Time thus consumed would be regained, and it would be unwarranted to assume that in such a method of procedure our men would be losers. Such an objection might be raised against any skirmish or battle. If we cannot hope for victory, we should not go to war. But even this principle must not be accepted as a model for invariable use; and it would be unreasonable were every patrol, regardless of everything, to charge the enemy with a loud hurrah whenever seen.

The events of a few hours that in our study are culled from the course of a campaign do not permit an appreciation of the advantages of intrusting Captain E—— with the entire reconnaissance in front of the regiment in contradistinction to the system of a large number of patrols sent out by the higher commander (colonel). A consideration of an episode of several days would show the advantages in a clearer light. We would more readily see that great difficulties are encountered

by a higher commander in directing patrols; that touch with them is easily lost; that their members and capacity are soon exhausted; and that it hardly would be practicable to fill gaps in time. Every change in the situation that would necessitate a change of route or produce a new task for troops would cause patrols to wander about in wrong directions, ignorant of the condition of affairs in front of the army; and the threads to guide this tangled net would soon slip from the commander in spite of the invention of "message assembly stations," which is a fragile makeshift that would work hardly a single day. Even the reconnaissance of troops sent forward to supplement the activity of the patrols will help out the defects of this system very little. A troop commander hardly will know the number and duties of the patrols and will be unable to keep touch with them. Then, how can he support them and supplement their activity?

Notwithstanding the bad luck that I purposely placed in Captain E——'s way, to present a convincing case, we see how he passably well controlled his patrols on a broad front, and how his military judgment and the fighting power of his troop assured the continued progress of the reconnaissance. This would have been more clearly shown had Lieutenant F——, at 5 a. m., attacked and dispersed the hostile patrol near Lettau.

The obstacle formed by the Passarge and the encounter with the hostile troop at Pittehnen would have thwarted individual patrols not under the captain's orders, or would have forced them to make wide detours, in which case their messengers would have been unable to find their way back. The captain would have found out something from one or the other of these patrols by chance only; and it hardly would have been possible to newly organize the system of reconnaissance after crossing the Passarge, unless he, on his own authority and in excess of his orders, had assumed the rôle that, to my notion,

fundamentally belongs to a "reconnaissance troop." A "reconnaissance troop" should be intrusted with the full duties that the name implies, thus at the same time forming a living and permanent "message assembly station." There is nothing to prevent a superior commander, if he sees fit, from sending out other patrols with special missions—a means that can be successfully employed even by the commander-in-chief of an army without his feeling obliged to personally direct the general patrol-service in front of the army.

The results accomplished by the patrols sent out for strategical purposes during the course of this study seem to be in sharp contrast with what in many quarters is hoped from them. Nevertheless, our examples might have some effect on those who are less skeptical, and, imbued with enthusiasm for their branch of the service, look upon the officer's patrol as destined to point out the way to victory to the commander-in-chief.

Our two strategical patrols promised the best results, as their efforts were directed against and around the flank of the hostile army. They had no unusual obstacles to overcome. I rather exerted myself to smooth their way, to show how thorny and rocky it is even under favorable circumstances. Even at the grand maneuvers we have strategical patrols fail us; how vastly less can we expect of them in time of war. How often will their messages, if they escape capture, arrive too late and have no effect on the movements of the army! And should instruments be invented that would enable patrols to communicate by wireless telegraphy, reliable messages could be hoped for in this way only if the enemy should be unable to read them too, and if he by the same means should not be able to deceive our headquarters.

I do not believe that I have exaggerated the difficulties and dangers or the exhausting effect of patrol-service, or underestimated the number of miles that horsemen can be ex-

pected to go. To corroborate my statements, I shall refer to a few examples from actual war that happened on the classical ground of our study.

When, early in 1807, Benningsen, the Russian commander-in-chief, surprised the French in their winter quarters, and Marshal Ney, who was first attacked, had provisionally brought his threatened troops into safety in the Guttstadt–Allenstein district, he (Ney) sent word from Allenstein of what had happened on the evening of January 22d to Elbing, the headquarters of Bernadotte's corps, which was next to him. The distance was 56 miles, and it took 24 hours to carry the message. The "operation order" which Napoleon sent January 31st from Willenberg to Bernadotte at Löbau was intercepted by the Russians, and, notwithstanding the Emperor's efforts, communication between him and Bernadotte continued interrupted. Even on February 7th, the eve of the battle of Pr. Eylau, the Emperor was ignorant of the whereabouts of Bernadotte's corps, although the latter general sent messages January 30th from Löbau, February 1st, 2d, and 3d from Strasburg, the 5th again from Löbau, and the 6th from Osterode; all these arrived afterwards. The distances between Bernadotte and imperial headquarters were about 75 miles at Strasburg and from 50 to 60 miles at Löbau and Osterode.

Marshal Ney received the "operation orders" on January 31st, at Gilgenburg, and the Emperor had to wait until February 2d for the anxiously-hoped-for information that Ney had begun his march, although the Emperor had sent him one messenger after another, and the distance was only between 35 and 45 miles.

Several days later, on February 5th, Ney fought the Prussians between the Passarge and Narien-see, and occupied Liebstadt in the afternoon of that day. The Emperor, who had spent the preceding night with the Marshal at Schlitt, did not receive Ney's report of the action at his new headquarters at

Arnsdorf, about 8½ miles from Liebstadt, until the morning of February 6th.

In the summer campaign of the same year, which also began unexpectedly for the French, it took over 24 hours for a report of the first encounter (which occurred on June 4th, at Spanden on the Passarge) to reach the Emperor's headquarters, 37 miles away; though a message received at the same time from Ney at Guttstadt, 50 miles away, came through in 9 hours. A letter that the Emperor, on the evening of June 6th, sent from Finkenstein to Davoust, who was 40 miles away, reached its destination in 13 hours.

Napoleon laid great stress on rapid and safe systems of communication, which were well organized in his armies.

All the above-named dispatches were carried by officers and within the French field of operations passed over well-known roads. And although, especially in the winter campaign, the roads were far from what might have been desired, the couriers were not limited to riding horseback, but, according to circumstances, made use of wagons and sleighs, for which purpose villages furnished the necessary teams.

The Emperor's aides knew his strict ideas concerning their duties in carrying messages, and extensive experience in war had familiarized them with all expedients for overcoming obstacles. It is true that maps were defective, but communication with the inhabitants was simplified by interpreters, furnished by German auxiliaries serving with the French. And, besides, Napoleon's officers already had been through a number of campaigns on German soil.

If, in spite of all this, the transmission of orders and the messenger service generally was greatly handicapped by all manner of friction, we must be all the more careful in estimating the capacity of patrols sent far ahead into the field of operations of the enemy. An appreciation of the obstacles and dangers surrounding them will not paralyze the energy

of their leaders, but urge them to greater exertions than if they had to be aroused from their illusion by stern realities of each case.

Large armies do not always encounter each other along a serried front. If strategical patrols move against the flanks of hostile columns, or into intervals between hostile columns, there may be opportunities for more profitable employment than in the case assumed by our study. The two campaigns of 1807 in Prussia furnish proof of this.

At the same time that Ney sent the above-named message of January 22d to Bernadotte, he sent a message to Berthier at Warsaw, which was intercepted by a Russian patrol south of Allenstein, and was delivered to Russian headquarters at Bischofstein the evening of January 23d. It contained a statement of the location of the Marshal's troops, his intentions and optimistic view of the situation. The copy of the operation orders sent by Napoleon to Bernadotte on January 31st was intercepted by Cossacks, and the same day was sent from Dt. Eylau, by Prince Bagration, to Benningsen, at Mohrungen, where it arrived late in the evening of February 1st.

In both cases the Russian commander-in-chief, had he been equal to the occasion, would have derived incalculable advantage from the knowledge of the opponent's situation that the papers conveyed.

And in our own times similar rewards beckon to the enterprising patrol-leader, as is shown by the already mentioned case of the capture of the French General Staff officer near Beaumont, August 28, 1870, whose order-case contained MacMahon's operation orders.

In all three cases the enemy's flank and his line of communications lay in the direction of the patrols' march and offered a nearer and more convenient objective than if the hostile flank had to be reached by a wide detour. But I wish to call attention to this fact, as emphasizing what has been said

above: not one of the important documents would have been captured from the enemy had the bearer been allowed to pass on unmolested. Of course, the most ardent advocate of the theory that patrols should simply see and not fight would not mean that such valuable prizes should be allowed to slip away. But who will be able to guess whether hostile troopers, discovered by the patrol-leader's sharp eyes, are carrying such treasures in their saddle-bags or not.

The grand prize in the shape of the enemy's operation orders will not daily fall into the commander-in-chief's lap and relieve him from the burden of uncertainty. Notwithstanding the most self-sacrificing activity and brilliant endowment of his patrol-leaders, his own sagacity, groping in the dark, must know how to find the right way. The reconnoitering bodies cannot relieve him of his office as guide, but they can assist him, and they can do this the more successfully the better they understand their business and the more their efforts surpass those of the enemy.

Lieutenant C——'s patrol (of those sent due east from the 1st Cavalry) was quite successful after overcoming the obstacle presented by the Passarge.

It is quite likely that the result of his reconnaissance (the principal value of which consists in the discovery of the location of hostile infantry outposts) will be carried back by Lieutenant C—— before dark. It also may be assumed that Captain E——'s arrangements, by early in the afternoon, will clear up the situation in the vicinity of Guttstadt. It is quite possible that by evening Army headquarters can be wired from Gr. Hermenau concerning the state of affairs on the Alle, and that, although the orders for May 6th will have been issued, some changes may still be made, suitable to the changed situation. Of course, in the enemy's country we cannot count on such prompt telegraphic communication. The headquarters of the 1st Army Corps undoubtedly will derive benefit

from the messages, and the service done by the 1st Cavalry during the forenoon of May 5th entitles it to due credit, even if the achievements have not been brilliant. The service was in accordance with the capabilities of the regiment and such as could be expected by headquarters. The comparatively favorable results no doubt in part were due to the fact that until noon no large bodies of hostile cavalry had been encountered, and that there were gaps in the hostile cavalry screen, through which our patrols and troops could either slip or force their way.

If my narrative, based on experience in campaigns, history, and imagination, at all conforms to the manner in which reconnaissance should be carried on, then there is a vast difference between the way this service is performed in peace and in war. For a fact, it is very difficult to organize this service on a war basis in time of peace. Even in the school of the troop it is hardly possible for the captain to observe all his patrols, and it is quite likely that some of the regulations that prescribe a pacific demeanor for patrols are due to the difficulties in the way of reconnaissance in time of peace.

And yet this duty is the foremost and most important devolving on cavalry. If it is not to prove a failure in war; if our troopers are not to become helpless and useless the moment they encounter a real enemy instead of a maneuver-opponent who does not shoot, cut, or make prisoners; if our commanders are not to become bitterly disappointed at the non-receipt of messages that in time of peace arrive with surprising regularity, we must find the way to a proper training for war.

In time of peace great care is taken to check anything done by infantry or artillery that is inconsistent with war conditions. No mounted man is allowed to show himself in the fire-swept zone; no order or message may be delivered that would not reach its destination in time of war; officers

and men alike must take advantage of cover and conform to difficulties of command incident thereto. Only the cavalry patrols ride as and where they wish, as if the grayish helmet-cover were a "hood of darkness" (*tarnkappe*), not only rendering the wearer invisible, but also invulnerable; and their messengers go unharmed through the midst of the enemy by the shortest and best roads.

We sometimes hear this justified on the plea that the dash and hardihood of cavalry must not be interfered with, and that whistling bullets would soon enough produce the necessary sobering effect. We might on the same grounds forbid infantry and artillery to take advantage of shelter on the ground and construct artificial cover in time of peace. It might only too easily happen that this hardihood of peace would change into its opposite if the soldier in time of war unexpectedly encountered dangers and obstacles he has not learned to overcome. My own experience justifies me in this misgiving. If we remove the obstacles that the trooper encounters at every turn, and if, on account of the difficulty to observe and instruct him in extended territory, we do not give him any chance to acquire and practice caution, adroitness, and power of decision, which alone will carry a patrol through all vicissitudes to its objective and the message back, the smooth and successful course of peace maneuvers will be founded on self-delusion. These important attributes will not be produced by a twist of the wrist upon declaration of war.

It is equally true of the cavalry as of the other arms, that only such troops are well trained as in war need change nothing they learned in time of peace.

In addition to giving instruction on the map through problems and kriegsspiel, which also is suitable for non-commissioned officers, I consider it essential to increase and improve the means of troop-leading in field exercises. If a large number of well-trained umpires (some of whom may be non-

commissioned officers) watch the conduct of reconnoitering bodies, the commander will be able to control and properly instruct patrols without adopting any measures contrary to practice in war. A knowledge that unskillful action, inattention, and indecision will lead to failure as in war; that patrols which are surprised or receive effective fire will be ruled out of action the same as infantry and artillery; that messengers falling into the enemy's hands will remain prisoners and must give up their messages as in war, will be the best schoolmistress. To insure a decision when no umpire happens to be present, it might be ordered that the senior commander of the two opposing bodies render the decision. It does not matter if this decision should be slightly biased. In larger operations the officers detailed as umpires should each have several assistants to look after patrols, who, under the direction and supervision of their superiors, surely would give to reconnaissance on a large scale the similitude of war.

The entire service will benefit by the experience gained by officers and non-commissioned officers as umpires.

I conclude these pages with the wish that the reader, who has entrusted himself to my guidance, may receive benefit from his work, and that I may have succeeded in impressing some of the realities of war upon him who has not yet experienced it.

Whoever may not be fully satisfied with my solutions should remember that no one is born a master, that many roads lead to Rome, and that, fortunately, the enemy also makes mistakes.

Studies in Applied Tactics.

PART II.

CAVALRY OUTPOSTS, MARCHES AND COMBINED OUTPOSTS.

PREFACE TO PART II.

The Preface to Part I. of these studies gives information as to its object and plan and the method in which it should be studied. A conviction that the only sure way to become a troop-leader is by practice, and an effort to present realistic material for my readers to think about, are my guiding-stars.

Service can only be properly performed in the predominant branches of the Army—the Infantry and Artillery—if everyone has a clear idea of the powers and limitations of cavalry. Therefore, the first part of this work is devoted to cavalry reconnaissance, and the second part first deals with cavalry outposts, which are intimately related to reconnaissance, and later with marches and outposts of the arms combined.

It is intended later to make use of the understanding hereby established between the reader and myself by discussing operations and battles.

GEORG VON ALTEN.

Berlin, August, 1904.

CAVALRY OUTPOSTS.

Selection and Occupation of the Night Position.

The "situation" is a continuation of that discussed in the first part of this work. A blue army is moving from the Vistula (Weichsel) on the front Gilgenburg–Saalfeld against a hostile (red) army coming from the east. The two cavalry divisions (1st and 2d) of the blue army are united on the right flank of the army. The left wing of this army consists of the 1st Army Corps, to which the 1st Cavalry has been attached from the 1st Cavalry Division. The fortress of Königsberg has its full armament and is garrisoned by (blue) organized militia. The orders issued on the evening of May 4th from headquarters of the 1st Army Corps at Saalfeld provide that on the following day the corps will continue its march via Maldeuten towards Mohrungen, while the 1st Cavalry will reconnoiter to the front and left flank.

Subsequently the corps commander ordered that 3 troops of the 3d Cavalry, under Major D——, of the divisional cavalry of the two divisions of the corps, take charge of the reconnaissance south of Narien-see towards Jonkendorf–Münsterberg. The 1st Cavalry had left Gr. Wilmsdorf at 5 a. m., May 5th. At 10 a. m. its advance guard reached Pittehnen and its main body Reichenthal.

Part I. tells of the regiment's experience to this point and gives the arrangements of the regimental commander and subordinates, as well as the contents of messages received, in so far as they are of importance to the situation. Our imagination will now further accompany the regiment.

At 10 a. m. the colonel had received from Captain E——, who had advanced with Troop E via Kleinefeld towards Wal-

tersmühl, the message of Lieutenant F—— (who, for several hours, had been in the vicinity of Komalmen), stating that at 8.35 a. m. 5 hostile troops of cavalry were marching along the Glottau–Queetz highway towards Heiligenthal. Colonel A—— temporarily remained at Reichenthal awaiting further developments. Contradictory reports detained him longer than he wished. The information received, that several hostile troops had crossed the Passarge at Kallisten and had gone towards Waltersdorf, was soon modified by further information that only 1 troop had gone towards Waltersdorf, halting at Mathildenberg. Some of the blue patrols west of the Passarge had to fall back before the enemy, and had lost sight of the Passarge valley at Kallisten. It was not until 11 a. m. that a message from Captain E—— cleared up the situation. At 10.20 a. m., from Height 140, south of Waltersmühl, he had discovered several hostile troops dismounted near Deppen, while nothing had been seen of the enemy on the highway between Heiligenthal and Glottau since 9 a. m.

Thereupon the regiment resumed its march via Elditten and Kleinefeld, and at 12.30 p. m. arrived north of Waltersmühl. Captain E—— reported that several hostile troops were advancing from Deppen. While the regiment was forming for action at Waltersmühl the enemy halted south of the creek flowing from Komalmen past Waltersmühl, which forms a serious obstacle. After vainly waiting for some time, the regimental commander decided to advance via Komalmen.

Thereupon the enemy, from whom the movement could not be concealed, fell back; while doing so it was possible to estimate his strength, which was placed at 7 or 8 troops. The regiment advanced via Ankendorf, with the idea of cutting off the enemy's retreat; but the latter could not be overtaken, as he branched off via Alt–Garschen, where, at 2 p. m., it gained touch with Major D——, who had taken 2 troops of the 3d Cavalry to Schlitt. The colonel learned from the major, who

rode up, that he had vainly tried to capture the bridge at Brückendorf by dismounted action, in which his men had expended most of their ammunition. He then had ridden north and crossed at Kloben, after a hostile troop had retired from there via Schlitt towards Blankenberg. He estimated that at least 200 rifles had been opposed to him at Brückendorf station (marked "H. St." east of Brückendorf on map). His casualties were 3 dead and 14 wounded; the latter were left at Brückendorf. Troop E, 3d Cavalry, which belongs to the 2d Division, has not yet joined. Major D—— has sent it word to watch the enemy near Brückendorf and prevent his reconnoitering towards Mohrungen. He himself intends going towards Jonkendorf–Gr. Buchwalde with Troops A and B. The major stated that he already had sent patrols in this direction, but that his command needed some rest.

The colonel explained the situation to the major and arranged with him that the 1st Cavalry would return to the Heiligenthal–Guttstadt road, and reconnoiter towards the Alle north of Münsterberg, while Major D—— would reconnoiter towards Gr. Buchwalde–Jonkendorf and farther south with his 2 troops.

In the meantime the hostile troops had continued their retreat via Blankenberg towards Steinberg.

At 2. 30 p. m. the regiment arrived at Heiligenthal, where, at 2.50 p. m., word was received from Troop A, 1st Cavalry, that the enemy had not been seen at Guttstadt up to 11.30 a. m., or at Knopen up to noon; that an officer's patrol was going beyond Guttstadt to reconnoiter towards Freudenberg–Tollack; that another patrol had been sent up the Alle via Knopen–Althof–Lower (Unter) Kapkeim; and that the troop for the present would remain at Queetz, sending small patrols towards Schwuben, Münsterberg, and Rosengarth.

The colonel sent Troop G to Rosengarth to reconnoiter towards Münsterberg–Gr. Buchwalde, and as a means of pro-

tection. The regiment took post west of Heiligenthal and dismounted.

To protect his own messenger route and to block it for the hostile patrols remaining on the left of the Passarge, Colonel A—— increased the post at Pittehnen to 1 officer and 15 men, then placed a non-commissioned officer and 10 men at Sackstein, and later sent a platoon of Troop H to Deppen with orders also to occupy the bridge at Kloben.

Several prisoners have been brought in whose statements, partly corroborated by inhabitants, reveal the following: The hostile 5th Dragoons,* which spent the preceding night at Heilsberg, this morning came via Guttstadt to Kallisten, where it joined the 6th Dragoons,* which was at Allenstein the preceding night. The two regiments belong to different brigades, but both belong to the 2d Cavalry Division and are with the 2d Army Corps. During the night of May 3d–4th the 5th Dragoons was alone at Schippenbeil. It could not be determined where the 6th Dragoons was during the same night. But the prisoner from the regiment says that his troop camped beside the railway, and that on the forenoon of May 4th he was sent back to this railway with a message, which he delivered to an infantryman at the place where he had camped the night before; that on the afternoon of May 4th, constantly riding along the railway, he had returned to his troop at Allenstein; that he estimated the distance from his former camping-place to Allenstein to be 25 versts (about 16 miles); that he had seen no troops during this ride; and that the railway was double-tracked.

In addition, two messages had been captured. The first is as follows:

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*In this translation the *enemy's* (red) cavalry regiments are supposed to consist of 600 sabers each, which conforms to the strength of European regiments, and is only half that of our own. But the red troop is taken at 100 men, corresponding to our own.—*Translator.*

TOMLACK WOODS,* South of Willnau,
5 May, 11-30 a. m.

To Colonel M——:

The two hostile troops reported by me at 8-30 a. m. as advancing from Mohrungen via Pfeilings forced me back into the woods, and are now followed by a third troop, which has reached Horn railway station and is trotting east along the track. The 2 troops first reported have advanced via Gubitten. After 10 a. m. we heard small-arms fire from the direction of Brückendorf. There are hostile patrols at Gallinden and Willnau.

N——,
Lieut. 5th Dragoons.

The messenger was captured at Seubersdorf by a patrol of Troop C, 3d Cavalry. His comrade escaped. Nothing has been learned concerning the whereabouts of the hostile officer's patrol.

The second captured message is as follows:

TEUFELSBERG, South of Herzogswalde,
5 May, 11-30 a. m.

To Colonel M——:

Circling around Waltersdorf, and avoiding a hostile patrol, I arrived here, after 4 or 5 troopers, who had occupied this knoll, had retreated towards Alt-Bolitten. Nothing suspicious can be seen from the Teufelsberg. I shall continue towards Gr. Hermenau.

M——,
Lieut. 5th Dragoons.

The two bearers of this message carelessly approached Kallisten after it was occupied by a platoon of Troop H, 1st Cavalry. The vedette at the western exit shot down one of the men; the second, whose horse was killed, was captured.

At 4.30 p. m. Lieutenant C——, 1st Cavalry (see page 130), arrived at Heiligenthal and reported the result of his reconnaissance. Riding along the edge of the woods west of Rosengarth, he recognized Troop G of his regiment *en route* to Rosengarth and verbally reported the situation to its captain.

The gist of his report is that during the forenoon a hostile cavalry regiment advanced from Jonkendorf, the greater part going via Pupkeim towards Schlitt and about one-fourth going

*"Tomlacker Wald" on map.

via Gottken–Ballingen; that between 1 and 2 p. m. hostile infantry outposts were posted at Wilhelmsthal and east of Mondtken; and that about 3.30 p. m. infantry outposts also were posted at Gr. Buchwalde. Lieutenant C—— had seen nothing of the hostile cavalry that according to another report had retreated via Blankenberg towards Steinberg.

About 5 p. m. a message is received from Major D——, dated 4.30 p. m., in which he states that the enemy has withdrawn from Brückendorf, Troop E, 3d Cavalry, then crossing at this point and advancing towards Pupkeim; that the enemy had taken along 3 wounded of the 3d Cavalry and the officials of Brückendorf station on wagons via Kl. Gemmern, leaving behind 13 seriously wounded and 6 dead of his own, most of whom belonged to the 6th and a few to the 3d Dragoons; that the hostile troops at 3.30 p. m. had left Steinberg for Pollеicken; and that the major would follow towards Pupkeim with Troops A and B.

Troop G, 1st Cavalry, reports from Height 166 northwest of Rosengarth that individual infantrymen have been seen at the edge of the woods east of Rosengarth, near the Rosengarth–Münsterberg road, and on the Rosenberg–Gr. Buchwalde road, who fired at long range on our patrols; and that shots also were fired from New Garschen.

Troop A, 1st Cavalry, is at Queetz. It reports that as late as 3.30 p. m. the enemy had not appeared at Knopen, or at Guttstadt, where a picket under a non-commissioned officer is stationed. The inhabitants of Guttstadt state that no hostile troops have passed through that town excepting the 5th Dragoons. May 4th a strong hostile patrol destroyed the telegraph line and railway switches at the station. A patrol of Troop A, 1st Cavalry, which advanced through Schwuben fell back at 4 p. m. before at least a company of hostile infantry which came from Klutken mill ("Klutken M." on map) and occupied Height 113 near Schwuben. The patrol also claims to

have seen hostile infantry on Podonnenberg near Münsterberg. The enemy has not been seen at Knopen as late as 4 p. m. A patrol sent south via Battatron was fired upon from Klutken, mill and from the height northeast of Lower (Unt.) Kapkeim, and discovered an infantry post a few hundred yards north of this village on the highway leading through Battatron.

The connecting-post at Pittehnen compiled a report from the messages there received, from which it appears that Lieutenant B—— (who was sent via Freymarkt towards Heilsberg in the forenoon by Captain E——, Troop A, 1st Cavalry) at 11.20 a. m. arrived at Freymarkt without seeing anything of the enemy, and continued his reconnaissance towards Launau; that Sergeant K——, Troop A, 1st Cavalry, following the troop defeated by Captain E——, lost track of it north of Sportehnen and rode towards Wormditt; and that Sergeant L——, Troop A, 1st Cavalry. reports from Liebstadt that Gr. Hermenau has been occupied by a battalion of the 1st Infantry.

Hostile cavalry patrols are no longer visible anywhere except near Neu-Garschen and Blankenberg.

Colonel A—— sent word to the commanding general of the 1st Army Corps, via Kallisten and the telegraph station at Gr. Hermenau, of the events happening up to 3 p. m.: the appearance of the two hostile cavalry regiments, their withdrawal towards Blankenberg, his meeting Major D——, and that the enemy had not appeared at Guttstadt up to 11.30 a. m. or at Knopen up to 12 noon.

At 5 p. m. 3 troopers from the connecting-post at Gr. Hermenau arrived with the following telegram:

Headquarters 1st Army Corps, MOHRUNGEN,
5 May, 1 p. m.

To the Comdg. Officer, 1st Cavalry:

The 1st Division will be quartered for the night at Himmelforth, Pfeilings, Horn, and Kranthau, the 2d Division at Mohrungen and Gr. Bestendorf, corps headquarters at Mohrungen. Your orders remain unchanged. So far no reports received here sufficiently clear up the situa-

tion east of the Passarge. Last message received from you is dated Pittehnen, 11 a. m.

By command of Lieutenant-General G.:

E. S——,
Chief of Staff.

The commander of the connecting-post has added the following:

GR. HERMENAU,
5 May, 1-30 p. m.

The importance of the enclosed telegram and the insecurity of the road induced me to send it by 3 men. A strong hostile patrol was seen near Herzogswalde at 11 a. m. We still have telegraphic communication with Liebstadt, where, so far, nothing has been seen of the enemy. A battalion of the 1st Infantry has occupied Gr. Hermenau.

H——,
Sergt. Troop C, 1st Cav.

The bearers of the message came via Alt-Bolitten, where Corporal M——, Troop A, 1st Cavalry, joined them and rode with them to Teufelsberg, whence he had been driven at 11 a. m. by a hostile patrol. At Sanglau they were obliged to hide themselves from hostile troopers until the latter rode back towards Seubersdorf, and thus they were considerably delayed. It was not until they reached Waltersdorf that they were able to continue on their way undisturbed to Kallisten, where they found the platoon of Troop H, 1st Cavalry.

The 1st Cavalry, leaving Maldeuten at 5 a. m., has come about 33 miles. It fed at Herzogswalde from 8 to 9.35 a. m., rested at Reichenthal-Pittehnen from 10 to 11 a. m., and has been at Heiligenthal about 2 hours, during which time the troops were able to water in succession.

DISCUSSION OF THE SITUATION OF THE REGIMENT; INTENTION AND ARRANGEMENTS OF ITS COMMANDER AT 5 P. M.

At last, word is being received about the enemy's infantry. The colonel has a right to hope that the report he is about to send, and which ought to arrive at Mohrungen by 8 p. m., will clear up the situation for the commanding general as far as this is possible up to date. Hostile infantry outposts are es-

tablished all along the line from Schwuben via Gr. Buchwalde and Mondtken to west of Wilhelmsthal. It may be confidently assumed that, in rear of these, columns have followed as far as the Alle. The fact that so far we have had to deal only with cavalry belonging to the 2d (red) Army Corps justifies the surmise that this corps has occupied the line of the Alle—but only the surmise. It would be of no advantage to lead the regiment against the hostile outposts to find out further particulars. We could not find out for certain even if we succeeded in penetrating the line at great cost. The Alle would check further progress. And of what advantage would it be to know that at some point there are a few battalions of the 2d Army Corps? It is sufficient for the commanding general to know that the advance of the hostile infantry has crossed the Alle.

But it would be of great importance if corps headquarters could be informed where the northern flank of the enemy is. The message concerning hostile outposts at Klutken mill and Lower Kapkeim is a pointer on this subject. But a definite conclusion cannot yet be drawn, for we still have no news about the roads leading east from Guttstadt on which hostile infantry also might be found.

The reconnaissance of the 1st Cavalry probably will no longer have any influence on the decision of the army commander, but it will serve the commanding general 1st Army Corps, and possibly of the 2d Army Corps also, as a basis for orders on May 6th, and may even be of use for their orders to be issued on the evening of May 5th. In Part I. attention was called to the fact that too much must not be expected from cavalry reconnaissance; and it must be admitted that the 1st Cavalry did not encounter any unusual difficulties. On the contrary, it was favored by the unexpected weakness and the withdrawal of the hostile cavalry; and if the hostile infantry had arrived later, its presence might not have been detected

until evening, so that a report about this might not have been received at Mohrungen until early the following day.

So Colonel A—— may look upon his day's work with considerable satisfaction. But how much still remains to be done, and how much is still enveloped in darkness!

Minor uncertainties, such as the enigmatical appearance of two hostile regiments of two different brigades and the absence of all information about the remainder of the 2d Cavalry Division, or the appearance of a part of the 3d Dragoons at Brückendorf, which, according to the well-known organization of the hostile army, belongs to the 1st Army Corps,* are of small moment. It is possible that the cavalry of the neighboring army corps, coming from the south, assisted the 6th Dragoons at Brückendorf—but it would not pay to bother about such details. It is of far greater importance to find out definitely how far the front of the hostile army extends to the north; and nobody knows if late in the day a hostile column may not reach Guttstadt or vicinity, to prolong the front early in the morning and envelop our flank.

It is true that Captain E—— as a precautionary measure has sent an officer's patrol to the east via Guttstadt, but how easily can a patrol be captured or forced aside; how little would be gained could it report that it was fired on by hostile outposts at Klingerswalde or Eschenau. For it is possible that there or even at Nosberg the troops encountered simply might be hostile covering detachments.

Were it not 5 p. m., and had the regiment not already covered a distance of over 30 miles, it would be an easy matter to clear up the mystery. The way is open and a ride to Guttstadt would bring the regiment to the commanding point on the enemy's flank. It may very properly be asked: Why

*The German General Staff has an accurate knowledge of the *ordre de bataille* of all foreign armies—including the names of the commanders of all larger organizations.—*Translator.*

did not the regiment continue its march towards Gr. Buchwalde or Guttstadt as early as 2 or 3 p. m.? This was impracticable both on account of the necessity for a prolonged rest and the uncertainty that prevailed at the time. It was possible that a march to Buchwalde would bring the regiment immediately in front of the enemy and prevent a reconnaissance of his flank; and a march to Guttstadt might be a wild-goose chase. It is not until 5 p. m. that the messages received justify a consideration of Guttstadt as the next objective.

But can Colonel A—— expect this further effort from his command late in the afternoon of May 5th? To-day's march has not demanded unusual exertions. The main body of the regiment marched at an ordinary gait; there was no galloping to strain lungs or sinews of the horses; prolonged halts afforded opportunities to rest; it was practicable to feed at Herzogswalde, and, during the past two hours, it was possible to water at Heiligenthal; there were no scorching sun's rays. Critically examining his command, Colonel A—— surely would conclude that its strength is far from exhausted. The 8 miles to Guttstadt could be traveled without any harm if it only were possible to rest there. But there energetic reconnaissance would have to begin, and at that exposed point, only 3 miles from the hostile outposts at Schwuben, it would be impossible to unsaddle, water, and feed. How would it be with the efficiency of the regiment on May 6th, the probable day of battle? Will it be able to give a good account of itself; will it be able to give efficient assistance after covering 40 miles on May 5th and passing a restless night under a frosty sky? Would it not be with a last gasp of horse and man that it would deliver its decisive attack on May 6th to cover a retreat or to pursue the enemy, if throughout the preceding night there should be ceaseless activity, as if May 6th were to be the last day of maneuver, when the "general" would be sounded and peace and quiet spread over the land. French's

cavalry division may serve as a warning, which in the late Boer war rode into Kimberley and as the result of a single day's overexertion was *hors de combat* for a long time afterwards.

Months may pass before peace is restored and every day in the meantime may bring new work, new exertions. This must be taken into consideration by every commander. And yet there is none who would hesitate to do his utmost, to shed every drop of blood, if necessary. Has this moment arrived for Colonel A—— on the afternoon of May 5th? Is what he hopes to accomplish by riding to Guttstadt worth the risk of materially reducing the efficiency of his regiment for the following day?

It would be different if *it were* forenoon and we were at Heiligenthal after a 12- to 15-mile ride. Arriving at Guttstadt in good shape, reconnaissance might be successfully undertaken on the right of the Alle. Daylight would enable us to get an extended view from the heights east and southeast of the town, troops could be sent forward as far as Nosberg and Eschenau, and Guttstadt could be abandoned in time for a safer place in case of the advance of hostile columns.

As matters now stand, the regiment would arrive at Guttstadt as the sun is setting, approaching darkness would make an extended view impossible, no conclusion could be drawn from the picket-firing of different posts, and no columns on the march would be discovered.

If, on the evening of May 5th, the regiment wishes to get into safe quarters from Guttstadt, the 40 miles it has marched would be increased to 45 or 50, to which at least 5 to 10 miles more must be added for the reconnoitering troops.

Should the regiment remain at Guttstadt, it would assume the rôle of a reconnoitering-patrol close to the hostile outposts without the advantages of mobilty and ease of concealment of such patrol. A hostile platoon of infantry stealthily approaching along the railway could attack it with impunity and force it to fall back in the dark.

The colonel must see that the regiment at Guttstadt virtually could accomplish no more than the patrols that have already been sent out, and that the march thither would unnecessarily tire and expose it, and unnecessarily reduce its strength for May 6th.

If the colonel decides not to advance to Guttstadt to-day, the next thing to consider is a place to spend the night. If it is impracticable to continue the reconnaissance against the enemy's flank, every other exertion seems useless. It would seem, then, that the only thing to do would be to gain new strength for to-morrow's duties and to otherwise carefully prepare for these.

It would be most convenient for the regiment to remain at Heiligenthal and Ankendorf. The two towns surely could provide most of the food necessary for the 1,200 horses and men, and whatever may be lacking can be brought from Komalmen, Waltersmühl, Kallisten, Deppen, and Alt-Garschen. Even if the baggage-train, which is still at Mohrungen, 15 miles away, has to be dispensed with, the troops very quickly could make themselves comfortable. It may even be possible to obtain straw, something unusual when bivouacking in the face of the enemy. For it must be a bivouac, be it never so cold, or should the rain descend in torrents.

It would be rash to place the horses under cover only 3 to 3½ miles from the enemy's outposts at Neu-Garschen and near Rosengarth, and half a day's march from our own infantry. It is even possible that the hostile cavalry, probably assembled near Neu-Garschen, might make a sudden attack.

Extensive preparations would have to be made for defense at the edge of the woods southeast of Ankendorf and Heiligenthal and to keep the roads thence under observation, and to resist the advance of the enemy from the line Alt-Garschen–Height 168 (southeast of Ankendorf), on the highway towards Queetz and on the one towards Komalmen.

The protection of the bivouac, for which purpose it might be necessary to detail strong interior and exterior guards in addition, might take half of the men, while at least one troop would have to form a detached post at Guttstadt, so that reconnaissance beyond the latter point might continue. As with a bivouac at Guttstadt, so also one at Heiligenthal would result in using up strength instead of conserving it.

Cavalry finds most complete rest with the least expenditure of strength in rear of a natural obstacle. There is a quiet night's rest in store on the left of the Passarge if the crossings at Kloben, Deppen, and Sackstein are held. Even the baggage train can be brought up to the quarters by 10 or 11 p. m., and the pickets at the bridges will have an easy time and mostly be able to place their horses under cover. A troop on outpost at Sackstein, another at Kallisten (left bank of the Passarge) with vedettes on the crest near Deppen, a troop at Kloben, the remainder of the regiment at Mathildenburg, Wenglitten, R. G.* Seubersdorf and Seubersdorf—such a disposition would insure the regiment's appearing on the scene May 6th rested, refreshed, and spick and span. It would be an arrangement that would render communication safe with the Army Corps, and in conjunction with pickets at Pittehnen and Gr. Hermenau would prevent hostile patrols gaining any insight of the situation of the 1st Army Corps during the remainder of the day and during the night.

In this case, too, at least one troop would have to form a detached post towards the enemy to keep touch with him and watch the roads on the right of the Alle leading towards Guttstadt. Were this task allotted exclusively to the patrols already in front, we would jeopardize communication with them, which, for example, might be completely severed by a hostile

*"R. G." is an abbreviation for *Ritter-Gut*, knight's manor.

troop or a platoon of infantry advancing to Queetz, Glottau, or Guttstadt.

But 11 troops would be well taken care of on the left of the Passarge, and an early start on May 6th still might bring the refreshed and invigorated regiment on time into the vicinity of Guttstadt.

Finally, it must be remembered that the colonel as yet does not know anything of the plans of headquarters for the 6th, and that the regiment in its quarters near Kallisten will remain well in the commanding general's control, so that thence he can send it whichever way he will. He may desire to have the march of his corps screened by the cavalry regiment whether the corps turns south past Narien-see towards Brückendorf–Kallisten, or past the north end of the lake (see) via Sackstein–Pittehnen; and this small cavalry force can in no way perform this task better than by blocking the crossings of the Passarge.

But should the commanding general desire the cavalry to advance farther, it would not have interfered with his plans. It could just as well advance towards Guttstadt or Wormditt, towards Münsterberg, Gr. Buchwalde, or Jonkendorf, depending on the inportance that the commanding general places on one or the other direction. He may have received information or orders calling for an entirely different view of the situation from that acquired by the colonel from his reconnaissance.

There are good reasons for adopting the plan just described. No one could censure the colonel, should he decide in its favor. Nevertheless, there not only arises the inevitable "but" with which every decision has to contend—for there is none that answers all requirements—there also arises a doubt in the colonel's mind whether, in spite of all this, there is not a better solution.

irst of all, it may be the experienced leader's natural aversion to a plan that so completely meets all requirements for

feed and rest as to remind him of field-maneuver methods. Then, too, his knightly sensitiveness rebels against the command to retreat that he must issue if the good quarters behind the Passarge are to be occupied.

It is true that quite often during a campaign the cavalry far in advance of an army, after a day's work is completed, finds it necessary to go back a step to be able to pass the night in a protected spot where outpost duty will be lessened and sufficient supplies can be found. But here conditions are different. The regiment is almost toe to toe with the enemy on the ground vacated only a few hours since by the hostile cavalry, which, avoiding an engagement, acknowledged our superiority and surrendered to the regiment and its patrols the control of the territory between the two opponents. Ought the regiment now of its own accord relinquish this control and enable the hostile cavalry by a quick movement to gain its lost ground and thus make amends for the mistake of earlier in the day? It would be very easy to do so. For example, if the hostile cavalry is on the Gr. Buchwalde–Rosengarth road, behind the forest screen held by the infantry outposts, and learns of the withdrawal of the 1st Cavalry towards Kallisten (which hardly would remain concealed after Major D——'s departure), it would only take about an hour for said cavalry again to be at Alt-Garschen or Heiligenthal. The Passarge also would protect it against a sudden attack if it should place adequate outposts opposite Kloben and Deppen; and the following morning the 1st Cavalry would have to force a defile before it could advance unmolested.

The regiment might remain at Heiligenthal until dark, in the meantime having quarters prepared on the left of the Passarge. This would prevent the enemy's promptly discovering the withdrawal, but he nevertheless might accidentally reach Heiligenthal before the 1st Cavalry again regained the right bank of the Passarge on the morning of May 6th. We

would be trusting to luck instead of taking no chances, and would be sacrificing valuable time that should be devoted to rest and for which reason the step backwards would have taken place.

It would be quite a long step, for some of the troops now at Heiligenthal must march back more than 4 miles. The thirty-odd miles traveled by them and by those to be sent to Kloben and Sackstein would be increased to nearly 40 miles; and it is pertinent to ask whether, as it seems necessary to go a few miles farther for suitable quarters, it would not be possible to find some more suitable place than the hiding-place behind the Passarge.

Such place cannot be found on the Deppen–Guttstadt highway. Queetz and Glottau are even more exposed than Guttstadt and Heiligenthal. Komalmen is too small. Waltersmühl lies in a narrow valley close to the Passarge meadows, which restrict freedom of action.

But Scharnick seems to offer what the colonel wants. Situated on the Liebstadt–Guttstadt highway, in close communication with the telegraph system, near enough to Guttstadt to closely watch it, far ahead of our own and near the enemy's flank, the regiment here would be at an advantageous spot ready for service early in the morning.

Only a few miles would separate the regiment from the bridges across the Alle at Schmolainen, Kossen, Guttstadt, or Knopen, should it wish to get a view beyond the river. A hostile advance towards the Passarge would not escape the notice of the regiment, which would constantly be in a position to report progress of the hostile wing. It is true that the commanding general has not yet issued his orders for May 6th, but even if the directions of 11 a. m. were not at hand, which repeat the general instructions and allow the colonel freedom of action, he in this contingency would have to decide for himself as to what he thought best for the regiment and most useful for the

army corps and army. He practically would discontinue his reconnaissance against the hostile front, for, although several patrols would remain on the left bank of the Alle in front of the hostile outposts, it is to be expected that they will be forced back early on May 6th at the latest. They would be able to see little of what happens behind the hostile screen of outposts. The regiment even would open the way for the hostile cavalry to and across the Passarge, as the weak posts of observation at the bridges easily could be overpowered. If the colonel pictures to himself the corps commander's thoughts, in so far as this is possible without knowing what orders have been received from army headquarters or what information has come from the front through other channels than the 1st Cavalry, he must feel satisfied that the disadvantages he would voluntarily incur would be of slight importance compared with the advantage of constantly remaining in touch with what is taking place on the enemy's outer flank. It is quite likely that nowhere else would it still be practicable to discover and report upon the depth of the hostile columns before they form up and come into action. Nowhere else could the regiment so effectively and successfully employ its fighting strength, either to relieve our own front, support the decisive attack, cover a retreat, or follow in pursuit.

It still would be doubtful whether the regiment would reach the Guttstadt–Liebstadt highway in time from quarters at Kallisten and Seubersdorf, even if there were no opposition to crossing at Deppen. We must count on the possibility of other hostile heads of columns arriving at Guttstadt on the afternoon of the 5th of May and by their advance on the morning of the 6th blocking the road to Pittehnen. The good line of communication gained at Scharnick via Liebstadt with corps headquarters at Mohrungen would always make it possible to comply with an order of the commanding general sending the regiment in different directions from those so far considered correct.

Judging by the map, the ground at Scharnick to a certain extent favors a night's rest. To be sure, we shall not find the same ideal security and comfort as behind the Passarge, still, Zaun-see and the former Lingnau-Lake ("Ehe-maliger Lingnauer od. Sawangen-see" on map) cover a part of the front, in rear of which the two Scharnick estates A and B, and the village of Lingnau can be utilized for shelter. It is true that the country is quite open towards the east and north, and although so far there is no indication of danger threatening from these directions, the service of security must not be neglected there and will require some strength.

The last objection that excited nerves might offer—viz., that the missing regiments of the hostile 2d Cavalry Division may be expected at Guttstadt in the evening, and that the enemy's superior numbers in the end might force the 1st Cavalry from its commanding place on the hostile flank—is pushed aside by the fearlessness of the soldier who does not allow himself to be frightened. In the face of such untoward circumstances, which so far have in nowise been foreshadowed, the regiment still would be more advantageously placed at Scharnick than at any other point. The only change that might take place is that the cantonment at Scharnick and Lingnau probably would be changed into a bivouac at Wolfsdorf or Elditten.

The colonel will issue his orders happy to think that it is not necessary for him to have his regiment fall back, but that the miles that lie between him and his quarters lead forward.

Considerable space was allotted these reflections because it seemed a favorable opportunity to elucidate certain principles concerning the conduct of independent cavalry as well as to show the reasoning that may precede the taking of an important step. Many of my readers may have encountered difficulties in attempting to put themselves in Colonel A——'s

place, and deduce for him a suitable and practicable plan out of the various possibilities presenting themselves. And yet the situation is not complicated or enigmatical, but comparatively simple. It seems to me that the problem has developed itself naturally before the reader's eyes during the progress of events narrated, and is less obscure than is usually the case with scholastic problems in tactics that have to draw more extensively on the imagination to produce the "situation" desired. The problem does not call for an ingenious solution and is not intended to test the student's ability to discover and correctly apply a military principle presented in a vague and indefinite form. The regiment is not in an unusual stiuation which only a genius could fathom. On the contrary, the circumstances are not at all unusual, but such as often occur in war. In my opinion, the difficulty mainly lies in the lack of opportunity to become familiar with the operations of larger bodies of cavalry in time of peace—particularly with the questions of quarters and outposts for independent cavalry. There are few generals in the German Army who as staff officers have not drafted orders for detachments, advance guards, and outposts of the combined arms in maneuvers, and who have not solved such problems in staff rides and kriegsspiel. But how seldom is it possible in time of peace to obtain practical experience in the command of larger bodies of cavalry forming part of an army operating in the field on a war footing against an opponent similarly organized. The expenses of such exercises would be too great, and it would be out of the question to call out army corps for the sake of cavalry instruction who in the resulting maneuvers would do nothing for some days but march along in rear of the cavalry. Unfortunately, the few opportunities during grand maneuvers (*Kaisermanöver*) often are circumscribed and spoiled by the necessity of complying with peace conditions, so that entire freedom of action and decision but seldom obtains. The obstacles in the way of

organizing and carrying on reconnaissance on a war footing, and of taking the effect of fire into consideration (as explained in Part I.) add to the difficulties of command in this branch of the service.

Military history furnishes but few examples illustrative of these principles as taught in maneuvers. The Napoleonic era dates back so far and dealt with such radically different conditions that its examples but indifferently serve our purpose. Neither will Stuart's celebrated cavalry operations during the Civil War in America help us out of the dilemma because they took place in a different kind of country and had different objectives from what would be the case with cavalry in Europe. Nor will our own campaigns of 1866 and 1870, the Russo-Turkish War, or the campaign in South Africa afford us sufficient instruction, as in no case the cavalry on both sides performed the part that must be expected of it in the wars of the future.

It is not surprising, therefore, if things do not run smoothly in theoretical instruction, if it does not receive adequate attention on staff-rides and at kriegsspiel. On account of lack of personal experience in the field and in maneuvers, the instructor hesitates to touch a subject where he must draw too much on his imagination. I am inclined to believe that we would take a long step in the right direction if annually we could have cavalry maneuvers of several days' duration under war conditions where regiment would operate against regiment and brigade against brigade; and if, whenever possible, cavalry divisions not only operated alone, but against each other under war conditions. The armies covered need not actually exist; they could be imaginary. The chief umpires soon would gain sufficient skill and experience to substitute messages for the actual appearance and co-operation of these bodies.* The

*We have devised exercises for field artillery where the infantry and cavalry are imaginary. A similar arrangement could all the better

extensive employment of a large number of well-trained, active, strict umpires would be a prerequisite; also the adoption of rules based on the realities of war with reference to capture of prisoners, placing out of action, interception of messages, etc., as well as the use of the telegraph between commanders and umpires. As long as we lack the necessary experience we must all the more carefully and thoroughly think the subject over. The detailed discussion that I introduced concerning the situation of the regiment was prompted by this fact. It also was intended as an object-lesson for the inexperienced—showing that by picking to pieces and testing the pros and cons of various propositions ideas can be shifted and a useful decision can be arrived at. The method is not infallible, but it sometimes answers the purpose when quick intuition fails and when no war experience fitting the case comes to mind. The method in itself does not insure a correct decision; but the more often such cases are thoroughly thought out, the more readily and easily a practicable path will be found. But even the most gifted should carefully verify a quick decision. It is a myth that the art of troop-leading is based on sudden inspirations, and that campaigns and battles are unconsciously won by heaven-inspired genius. The very greatest of our generals have borne witness that their decisions have been the result of strenuous thought. All the more will careful, conscientious thought be necessary from lesser lights.

But it would be a mistake to imagine that it was the right and duty of a leader in a certain measure to ask for time so

be made for cavalry, because it, as a rule, is not in close contact with other branches of the service. The difficulties of obtaining forage would not prove insurmountable if all the villages in the maneuver area kept such supply on hand as they were able to spare, of which troops could buy for cash what they needed. Whatever was not used would remain the property of the community. There would be no difficulty in procuring the necessary food for the relatively small number of troopers from the villages. This manner of supplying food and forage would not be out of the way, because in time of war the cavalry would have to live off the country.

that he alone or with the help of an assistant may think over the situation, when called upon to make a decision in the field. The mental superiority of a commander more particularly shows itself in an emergency by the cool methodical way in which he works. But it is seldom that at the last decisive moment there would be time for such a methodical analysis as is contained in the foregoing pages, and it would be dangerous to have the appearance of being in doubt.

Before the moment calling for action is the time for clear-sighted thought, which prepares for possibilities so that you may not be surprised by the unexpected and taken at a disadvantage. The more carefully and correctly every change in the situation and every report is tested and considered, the more you accustom yourself to look far ahead and weigh the arrangements that may be demanded in the future, the better will your mind be prepared for rapid decision.

As a matter of fact, Colonel A—— was not suddenly called upon to come to a decision. The panorama of the situation was gradually unrolled before him, and long before the receipt of the last information (at 5 p. m.) he held council with himself on the significance of details obtained from Major D——, the messages from his own patrols and of those intercepted from the enemy, the prisoners, and inhabitants. Even before Lieutenant C—— personally brought information of the discovery of hostile infantry outposts, Colonel A—— concluded that hostile infantry would to-day reach the Alle, on account of the statement of the prisoner captured from the 6th Dragoons who yesterday delivered a message to an infantry major only 15 miles from Allenstein. There was no more danger of Lieutenant C——'s message misleading Colonel A—— into believing that the hostile flank was located at Gr. Buchwalde, than there was of Colonel C——'s message about hostile infantry at Schwuben and Kapkeim inducing him to believe that there was no possibility of Guttstadt being occupied later by the

enemy. While the regiment was resting and watering, filling nose-bags, and obtaining supplies generally at Heiligenthal, the colonel, presumably on Knoll 170, had two hours' time to think about the situation. It would have been during this period, in time of war, that most of the deliberation would have taken place which the student of the problems in this work can undertake only as the latter are presented in quick succession by the author.

Colonel A—— could have come to a decision based on Lieutenant C——'s message received at 4.30 p. m. But he did well to delay, for, if it proved true that the enemy's left flank actually was at Gr. Buchwalde, there would be no need to go farther north. In this case he would have been on the enemy's outer flank on the Kallisten–Guttstadt highway, and, being more than 6 miles from the enemy's infantry, could remain where he was. The message received at 5 p. m., concerning the hostile company at Schwuben, at once enabled the colonel to decide what to do, as he already had thoroughly gone over everything that had been received before.

It will be somewhat of a relief for junior officers to realize that as a rule the necessity to come to a decision does not present itself as suddenly as in practice problems. At the same time it must be remembered that in a campaign a commander must constantly tax his mental powers so as not to be surprised by occurrences, but to be prepared for the worst. As Hamlet says, "the readiness is all."

The careful reader of military history often is surprised at the almost resigned air in Napoleon's letters written to confidential friends on the eve of battles, as if this great optimist and believer in his star and power wished to have a clear idea of the means of safety at hand in case the planned blow should fail. I also can refer you to Goeben, the general of unchallenged, dauntless determination, who told me that the night before the battle of St. Quentin he did not sleep, but for hours

thought over the situation while referring to a map so as not to overlook a single chance presenting itself to him or the enemy, either for victory or defeat.

Not only the last drop of blood and the last breath of horse and man must be risked to gain the end in view, but also the last particle of brain-fiber.

Exigencies of the service often not only demand that juniors implicitly follow the orders of their superiors, but also that they willingly accept the latters' plans and views even if contrary to their own. It therefore would be no waste of energy if any reader, who came to radically different conclusions from my own regarding Colonel A——'s situation, would accept my own, and, based upon them, write out the arrangements to be made by Colonel A—— at 5 p. m., before consulting the following:

ARRANGEMENTS MADE BY THE REGIMENTAL COMMANDER AT 5 P. M.

After word had been sent to the lieutenant-colonel and squadron commanders to report to the colonel, the latter dictated the following report to three officers of his staff:

1. HEILIGENTHAL,
5 May, 5 p. m.

To the Chief of Staff, 1st Army Corps, Mohrungen:

From 1 to 4 p. m. to-day the enemy established infantry outposts on the line Wilhelmsthal–Mondtken–Gr. Buchwalde–Münsterberg–Schwuben; also at Klutken mill and Lower (Unt.) Kapkeim. So far nothing has been seen of the enemy at Knapen, Guttstadt, or Kossen. No word has yet been received from the reconnaissance to the east via Guttstadt. No enemy was found at Freymarkt at 11-20 a. m.; an officer is now riding thence towards Heilsberg. Only the 5th Dragoons came through Guttstadt, who, in conjunction with the 6th Dragoons, at 3-20 p. m., went from Steinberg towards Polleicken. Major D—— left Schlitt for Pupkeim at 4-30 p. m., with 2 troops of the 3d Cavalry, to join Troop E, 3d Cavalry, which crossed the Passarge at Brückendorf. At Brückendorf, in addition to wounded of the 6th Dragoons, there also were found some belonging to the 3d Dragoons.

I am taking the regiment to Scharnick and Lingnau, where I intend to pass the night, and would request orders and information be sent me via Liebstadt to Lingnau. There are connecting-posts at Liebstadt and

Pittehnen. Small detachments will be left at Sackstein, Kallisten, and Kloben.

I would request that Lieutenant G—— be retained at corps headquarters to-morrow as observer.

The colonel then dictates orders (2 and 3) to Lieutenant G—— and the regimental adjutant:

2.

To the Platoon Commander, Troop H, 1st Cavalry, Kallisten:

The regiment will go to Scharnick and Lingnau for the night. Your platoon will continue to hold the crossings at Kallisten and Kloben, and will be directly under my orders. Your messenger route will be via Heiligenthal–Komalmen or via Sackstein–Kleinefeld–Wolfsdorf. The detachment at Sackstein will remain there for the night.

3.

To the Commander, Baggage Train, 1st Cavalry, Mohrungen:

The train will at once move to Liebstadt, where it will go into cantonment for the night and attend to its own safety. Report your departure from Mohrungen to me by wire via Liebstadt to Lingnau, and your arrival at Liebstadt via connecting-post at Pittehnen. Lieutenant G—— has authority to change or add to these instructions.

Lieutenant G——, who was one of the officers copying the report for corps headquarters, receives the following verbal instructions:

"You will take 5 troopers and ride to corps headquarters via Kallisten and Willnau to deliver the report (No. 1). At Kallisten you will give the commander of the platoon Troop H, 1st Cavalry, this order (No. 2).

"West of Willnau you may find outposts of the 1st Division. You will acquaint the outpost and advance-guard commanders with the contents of the report (No. 1) as far as this is possible without losing time. You will take along two copies of the report (No. 1); carrying one copy yourself and having one of your escort carry the other. You will take advantage of every opportunity offered to send the report ahead more rapidly (cyclists or telegraph). I expect you to reach Mohrungen by 8 o'clock this evening.

"I will give you this order (No. 3) for the baggage train, which ought to be at the Mohrungen railway station. You may modify this order as may seem best to you."

Lieutenant G—— departs after repeating his verbal instructions, and after the colonel is satisfied that the officer is familiar with what has happened during the day. The colonel may possibly add some instructions as to what he expects the officer to do next day.

The lieutenant-colonel and squadron commanders having arrived, the colonel gives them the following verbal instructions in the presence of the squadron adjutants, who make the necessary notes:

4. "The 1st Army Corps will remain at Mohrungen, Pfeilings, Horn, and Kranthau to-night.

"The enemy has established infantry outposts on the left bank of the Alle from Schwuben via Gr. Buchwalde and Mondtken to near Wilhelmsthal; and on the right bank of the Alle at Klutken mill, north and northeast of Lower Kapkeim, as far as has been determined. Until quite recently the enemy had not appeared at Knopen, Guttstadt, or Kossen. Troop A, 1st Cavalry, now at Queetz, sent an officer's patrol via Guttstadt towards Freudenberg–Tollack, but no report has yet been received from the latter. Lieutenant B—— at 11.20 a. m. found Freymarkt unoccupied by the enemy and then proceeded via Launau towards Heilsberg. At 3.30 p. m. hostile cavalry that was opposed to us left Steinberg, going towards Polleicken. Major D——, with 2 troops of the 3d Cavalry, is *en route* from Schlitt to Pupkeim to join a third troop of the 3d Cavalry, which crossed the Passarge at Brückendorf.

"The troop of the hostile 5th Dragoons which this morning retreated via Klogehnen from before Captain E—— gained the right bank of the Passarge at Sportehnen. At this point Sergeant K——, who was following, lost trace of it and went to Wormditt.

"I intend having the regiment spend the night at Scharnick and Lingnau, starting thither shortly via Komalmen. The *1st Squadron* will lead and will be charged with the protection of the column towards the north, northeast, and east. It will occupy Lingnau and will make arrangements for the protection of this place as well as of the cantonment of the entire regiment on a front extending from the former Lingnau-lake (inclusive), to the Beiswalde and Neuendorf railway, and thence to a point on the creek between Beiswalde and the Scharnick–Regerteln highway southwest of Beiswalde.

"Troop A for the present will continue as reconnaissance troop under my immediate orders, and provisionally will go to Neuendorf; but probably will spend the night with the squadron at Lingnau.

"The 1st Squadron is charged with watching the crossings of the Alle below Kossen, especially the two bridges at Schmolainen, as well as the roads leading to Liewenberg, Sperlings, and Launau. Requisition may be made on Beiswalde and, if necessary, also on Regerteln and Neuendorf.

"The remainder of the regiment, under the lieutenant-colonel, will occupy Scharnick. It will follow the 1st Squadron, and is charged with the protection of the column towards the northwest, west, and south. Later it will protect the front of the regiment from the former Lingnau-lake (exclusive), past the north end of Zaun-see, across the Scharnick–Heiligenthal highway to the Lingnau–Wolfsdorf road, and thence across the Scharnick–Regerteln road, joining the outpost of the 1st Squadron southwest of Beiswalde. In front of the outpost, the roads to Freymarkt and Wormditt and the Guttstadt–Kallisten highway must be carefully watched. This part of the regiment also will keep up the connecting-posts with Pittehnen. Requisition may be made on Komalmen, Warlack, and Wolfsdorf. Troop G will receive separate orders and will

continue in observation of the hostile outposts. Provision will be made for quarters for it at Scharnick.

"The detachments at Liebstadt, Pittehnen, Sackstein, and Kallisten will remain in position and will receive orders from me.

"The 1st Squadron will reserve quarters in Lingnau for regimental headquarters.

"The baggage train has been ordered to Liebstadt. It will not be at the disposal of the troops. The 1st Squadron may start in 15 minutes, provisionally going only as far as the north end of Zaun-see. The column must keep off the parts of the highways that are visible from the east.

"All detachments necessary to provide for the service of security and information of the regiment and for preparation of quarters will be sent out at once.

"In case of attack, the quarters occupied will be defended."

The lieutenant-colonel and commander of the 1st Squadron will require some time to think about the new situation and their instructions, and to compose their orders, so that more than 15 minutes will pass before the column can start. The regimental commander has time to make further arrangements.

He dictates the following orders:

5. HEILIGENTHAL,
5 May, 5-25 p. m.

To Commanding Officer, Troop G, 1st Cavalry, at Rosengarth; and Commanding Officer, Troop A, 1st Cavalry, at Queetz:

At 4 p. m. a hostile company of infantry established an outpost at Schwuben.

The regiment is about to march to Scharnick and Lingnau to pass the night.

Troop G for the present will continue as reconnaissance troop under my immediate orders, and will watch the hostile outposts. Unless circumstances should forbid, it may take quarters for the night at Scharnick, but will be responsible that touch is retained with the enemy from Wölken to the vicinity of Steinberg. A platoon of Troop H is at Kallisten and Kloben.

The 1st Squadron will provide for protection at Lingnau and Beiswalde. At 6 p. m. Troop A will proceed from Queetz to Neuendorf under cover, and will continue as reconnaissance troop under my immediate orders. It may take quarters for the night at Lingnau, but will be responsible that touch is maintained with the enemy to the north of Wölken on both banks of the Alle.

I shall expect a report from both troops at Lingnau not later than 8 o'clock this evening.

I shall attend to the detachments at Herzogswalde, Liebstadt, and Pittehnen.

The crossings of the Alle north of Kossen and the roads to Liewenberg and Launau will be looked after by the 1st Squadron.

6.

To the Connecting Post, Pittehnen:

Read the inclosure and promptly forward it to Liebstadt.

Inclosure:

To the Connecting-Post, Liebstadt:

The sub-joined telegram for corps headquarters to be wired at once. The connecting-post at Liebstadt will see that the detachments of the 1st Cavalry at Gr. Hermenau and Herzogswalde will at once come to Lingnau via Pittehnen.

The connecting-posts at Liebstadt and Pittehnen will continue their present duty.

By order of Colonel A——:

B——,
Adjutant.

Telegram to corps headquarters, Mohrungen:

Near HEILIGENTHAL,
5 May, 5-30 p. m.

There are hostile infantry outposts at Lower (Unt.) Kapkeim, Schwuben, Münsterberg, Gr. Buchwalde, and Mondtken. Enemy not at Knopen, Guttstadt, or Kossen. To-night the regiment will remain at Lingnau. Request orders via Liebstadt.

A——,
Colonel.

7. Near HEILIGENTHAL,
5 May, 5-35 p. m

To Detachment, at Sackstein:

The regiment goes to Lingnau. The detachments at Pittehnen, Sackstein, and Kallisten will remain in place.

Numbers 6 and 7 are prepared in duplicate and No. 5 in triplicate, so the regimental adjutant will have a retained copy. They will be forwarded by messengers, preferably such as know the way. To attain this end and to save men, it is usually

advisable not at once to send back men who have come with messages, but to hold them until they can carry back a message or an order.

Numbers 6 and 7 will be taken by one man, who will continue on his way from Sackstein to Pittehnen.

Finally, the colonel will send a non-commissioned officer and 3 men of Troop H to look for Major D——, 3d Cavalry, in the vicinity of Pupkeim, and verbally tell the latter that the 1st Army Corps will pass the night at Mohrungen, Pfeilings, and Horn, while the regiment will stay at Lingnau and Scharnick, leaving a platoon at Kallisten and Kloben. Should the major not be found at Pupkeim, then the non-commissioned officer is to ride via Neu-Kockendorf to Brückendorf, where presumably there is a connecting-post. The non-commissioned officer is to inquire where the major will stay for the night and what further information has been received. Then he is to ride to Kallisten and join the platoon of his troop at that point. A written report from the non-commissioned officer is to be sent to Lingnau.

It can be confidently asserted that every single case dealing with the conclusion of a day's work of a body of cavalry, in the future coming to any reader's notice, will differ from the one above described. It therefore would be a loss of time to study Colonel A——'s arrangements as prospective models. But it will pay to examine the wherefore of some of these arrangements, so as to derive mental benefit from such examination of the reasons.

The first thing to be done was to send a report to corps headquarters. The earlier they know about the situation at corps headquarters, the better can commands be issued to suit the case. A colonel reports in a different way from a patrol-leader. He summarizes results while, as a rule, a young

officer or a non-commissioned officer is limited to reporting on individual cases.

Colonel A——— included in his report several pieces of information concerning Major D——, and possibly already reported by the latter. Major D——'s further advance that afternoon notwithstanding the exhaustion of his troops, and the appearance of troops from the 3d Dragoons, whose presence heretofore had not been suspected, make it highly probable that he will meet with difficulties and that there might be trouble about his messages getting through to headquarters.

On this account Colonel A——'s addition to his report will be welcome at Mohrungen. One of the regimental staff officers is to carry the report, not only because he will be able to give the commanding general further details about the events of the day, but also to insure orders later going back to Lingnau and to furnish instructions to the baggage train. Certain details omitted by Colonel A—— because he thought them a side issue might be of importance to the commanding general; and while Colonel A—— does ask that orders for him be sent over a certain route, still, he has a right to expect more detailed accounts of what is worth while for him to know, if sent by his special representative. During the evening of May 5th there is so much to be done at corps headquarters that in the bustling activity something of importance to the regiment easily might be overlooked and fail to reach it in time on the 6th, as an early start must be made. The officer is to remain at corps headquarters May 6th and see that the regiment is informed of everything of importance for it. It is not customary to have observers with superiors; they are more necessary with neighboring commands not under an immediate superior, for the personal interest of a superior is closely enough interwoven with that of his subordinates. And Colonel A—— would not have taken this step had he not anyway been obliged to send an officer to headquarters with a strong escort who

would not be able to get back to the regiment in time and who at the same time has sufficient authority and discernment to judiciously direct the baggage train.

The colonel abandons the idea of having the train join the regiment. The staff officer will be unable to deliver the report at corps headquarters before 8 p. m., and the train cannot be counted on leaving before 9 p. m., probably not reaching Liebstadt before midnight. It would be 3 a. m. before the train could arrive at Scharnick and Lingnau, an hour at which the regiment, owing to the strained situation, no longer would be able to make use of the facilities offered by it. Very likely any orders for the train to join the troops in their cantonment would have to be revoked and this might necessitate special arrangements for protection.

But it seems right and proper that the train should be ordered away from Mohrungen, where it is in the midst of the troops of the army corps. This seems a favorable opportunity to examine what the train has accomplished during the day.

To be sure, it did not assemble at Maldeuten until 6 a. m., but as the regiment left at 5 a. m. the train began its work long before this. The escort certainly did not get up any later than the members of troops, and in most instances the horses, too, were harnessed before 5 a. m. Since 9 or 10 a. m. the column has halted on the road at Mohrungen, to continue its march late in the evening. It was impossible to obtain any real rest during the long wait. Although men and animals were able to obtain the necessary food, it was not possible to unharness the animals. The commander and non-commissioned officers had the difficult task of maintaining order; and every officer of experience knows what that means with an army corps marching by and a neighboring town to encourage infraction of orders. It is not too much to assert that a halt of nearly 12 hours at Mohrungen under such conditions is more wearing than would have been an additional march of 12 miles

on the smooth highway. Arriving at Liebstadt at midnight, the train will be nearly at the end of its tether, although in more than 18 hours it traveled only about 18.5 miles on a good road. The baggage trains of all troops almost daily encounter similar discomfort, and unfavorable weather and bad roads increase the difficulties in a high degree. Although the regiment in this case has the prospect of obtaining food and forage in the neighboring localities, and thus is not dependent on the supplies carried in the baggage train, I wish to call attention to the difficulties that might arise under other conditions. Lack of supplies can destroy the best of plans and dampen the enterprise of the most intrepid leader, particularly in the cavalry, where efficiency of the horses depends so much on forage.

A cavalry commander especially must think of supplies, because this matter does not concern him in time of peace, and because the system of forwarding supplies and the training of the personnel in all European armies undoubtedly are not up to date. While all other appliances of war have been greatly improved by taking advantage of modern inventions, we are, as far as forwarding of supplies is concerned, almost on a mediæval basis, once the support of railways fails us; for we depend almost entirely on the many thousand wagons, none of which can go much farther than 18 miles a day, and carry comparatively small loads.

The colonel gives his instructions verbally to the lieutenant-colonel and squadron commanders; dictation would take too long and is not really necessary, as any misunderstanding readily could be rectified almost at any time.

Everything about the situation might be omitted that is already known to these commanders.

Different arrangements for the march and the night position might be ordered and still answer the purpose. The reader who took the trouble to work them out will have recognized the difficulties of the case notwithstanding its appearing

very simple at the first glance. I have attempted to so arrange the duties that the colonel would have nothing more to do with details, and to shorten the line of outposts as much as possible, so that a minimum number of men would be needed.

The colonel waits with issuing orders for the troops to occupy their quarters. He provisionally has the regiment go as far as the north end of Jaun-see, because he is not yet certain that he can carry out his intentions. Further information about the enemy at the last moment might necessitate a change. But the detachments to prepare for the occupation are to be sent out at once, so that the reconnoitering and protecting screen may be formed in the new direction before dark and prevent any farther delay in the regiment's going to rest.

The colonel already has decided what to do in case of alarm, because the orders for the squadrons in part depend on this. They would have to make very different arrangements if, in case of sudden attack, the troops were not to defend the villages, but had to assemble beyond them. It is easy to see why the colonel decided not to assemble his men in case of attack. The whole regiment in a way is on outpost-duty and so near the enemy that in case of a sudden attack there hardly would be time to get out the horses. As the effort presumably would have to be made under fire, it would result in confusion and interfere with the efficiency of the men in the dark. If there is timely warning of an attack—if plenty of time will be available—there is nothing to prevent the colonel's subsequently ordering the men to mount, should he consider it advantageous. It would be inadvisable to designate a place of assembly for the entire regiment even if it seemed certain that under all circumstances the men would act mounted. The colonel would thereby unnecessarily tie his hands. Anyway he would have to send the order to assemble to part of the regiment not in the first line, and it is just as well to wait until then before informing the men where the place of assembly

is. Even with troops quartered in a single village, it is advisable to have different places of assembly for smaller units. Scharnick, which is more protected and seemingly more comfortable, is not selected for regimental headquarters, but Lingnau, so the headquarters may be nearer at hand to receive information from the outpost and guards.

It anyway is out of the question for the colonel to expect a quiet and comfortable night.

As the colonel by his orders to his subordinates has rid himself of the details of protection, he can the more completely give his attention to watching the enemy, and the terrain, and supervising the movements of the two reconnaissance troops. The services of the latter cannot yet be dispensed with and must not be disturbed. Relieving them just now would cause confusion in reconnaissance work, no matter how much it is to be desired that Troop A be relieved and allowed to rest; a better opportunity must be awaited. On the other hand, it is contemplated to have both troops join their respective squadrons for the night, so they may be relieved at least from the care of providing for their own protection. But it will depend on the enemy whether or not they can take advantage o this favor.

A joint order was drawn up for the two troops, so they might mutually understand their orders and co-operate in carrying them out.

The connecting-post had to have orders in any event, and this opportunity to send a copy of the report to corps headquarters by wire could not be missed.

Touch with Major D—— is somewhat relaxed by the regiment's departure; hence a non-commissioned officer is sent to Pupkeim, but without any written communication, because there is considerable danger of a written message falling into the enemy's hands. As elsewhere in this study, so also here, the length and number of orders and arrangements

may cause surprise. It certainly would be desirable to shorten and reduce the number, but I did not succeed in doing it. In my opinion, any attempt at this would open the door to confusion and misunderstandings. The time required might be somewhat shortened by the discovery of various expedients during the routine of a campaign. For example, the commander might permanently intrust a capable officer of his staff with looking out for communication to the rear and to the flanks and with preparing and suggesting all arrangements to this end. In the present case this officer might have drawn up the orders for the detachments at Kallisten, Sackstein, Pittehnen, and Liebstadt, and might have suggested the sending of a telegram to corps headquarters and of a patrol to Major D——.

In view of the number and length of the instructions that a cavalry commander must order and dictate at such a time, it is interesting to imagine to what extent his work would accumulate should he wish to retain the actual reconnaissance work in his own control. It would be almost hopeless to make all the arrangements now necessary for sending information of the new situation to the officers' patrols far ahead, for closing the gaps in the screen, and for providing the additional patrols to be sent out with suitable instructions. Five or six additional orders would be necessary, and even then there would be no certainty that provision had been made for observing the enemy at every point and that protection was assured the command. It is simpler and surer to let the reconnaissance troops attend to this matter.

The arrangements of the lieutenant-colonel and the commander of the 1st Squadron, now to be considered by us, would have to be made by the map even in time of war. Therefore, the reader who wishes to work out these arrangements is not placed in an unnatural position by not being able to see the

actual ground. But it must be remembered that to-day, May 5th, the weather is fine, while it rained for several days before. The rivers and creeks are flooded. The meadows in places cannot be crossed by teams or mounted men. It was learned at Heiligenthal that the bed of what once was Lingnau Lake can only be crossed by single footmen with experienced guides.

WHAT ARRANGEMENTS ARE MADE BY THE LIEUTENANT-COLONEL AND THE MAJOR COMMANDING THE FIRST SQUADRON AT 5.30 P. M.?

During the ride to Heiligenthal these two officers confer with each other and agree about the junction of their respective outposts on the creek about 1,100 yards northeast of Scharnick. Upon arriving at the halting-place of the troops, the troop commanders are informed of the situation.

The commander of the 1st Squadron, who has also called up Lieutenant H——, Troop C, and Lieutenant J——, Troop D, adds the following:

"The squadron is ordered to occupy quarters at Lingnau. I shall give further information on the subject on the spot. Lieutenant H—— will ride ahead, divide the village among the four troops, and select quarters for regimental and squadron headquarters. To Troop B will be assigned the buildings at the exit towards Guttstadt; and to Troop C, those at the exit towards Wolfsdorf. The safest part of the village will be reserved for Troop A. Lieutenant H—— will attend to forage for all the horses; and will have the people commence cooking in all the dwellings. If sufficient oats cannot be found at Lingnau, a further supply will be requisitioned from Beiswalde. The different troops will let the lieutenant have the necessary men.

"Troops B and C will be the outpost troops.*

*See par. 190, F. S. R.

"Troop B's section of outpost will extend from the bed of Lingnau Lake across the Lingnau–Neuendorf highway to the railway, along this to the Lingnau–Altkirch road (exclusive).

"Troop C's section begins at this road (inclusive) and extends west across the Lingnau–Beiswalde road to the creek flowing from Scharnick towards Regerteln. At a point on this creek about 1,100 yards northeast of Scharnick the outpost will join that of the troops quartered in Scharnick. Each of the two troops will at once send forward a detachment of such strength as may seem necessary to provide for protection.

"Lieutenant J—— with a platoon of Troop D will ride to Altkirch, beyond the line of the outpost, where he will watch the Guttstadt–Sommerfeld road, the crossings of the Alle below Kossen—particularly the two bridges at Schmolainen—and the roads leading to Liewenberg, Sperlings, and Launau. He will remain at Altkirch over night and will be under my immediate orders.

"The squadron will start immediately and at first will go via Komalmen as far as the north end of Zaun-see.

"Troop B will act as advance guard. It will be followed by Troop C and the latter by Troop D.

"Parts of the highway visible from the east will be avoided by turning to the west of the road."

The captain of Troop B is instructed to send a patrol to Queetz to keep in touch with Troop A and to act as a protection towards the south and southeast in the district between Zaun-see and the former Lingnau-see until the outpost from the remainder of the regiment arrives there.

The lieutenant-colonel also has two lieutenants present when he issued his orders, which are as follows:

"The 2d and 3d Squadrons will follow the 1st in the following order: Troops E, F, H, and 3d Squadron. Troop M will form the rear guard. Lieutenant K——, Troop F, with one platoon of his troop, will at once proceed to Scharnick, where

he will provide quarters for my headquarters, Troops E, F, G, and the 3d Squadron. Troop E will be located at the north exit, and Troop F at the south exit of the village. He (Lieut. K——) will have at least 275 bushels of oats sent to Scharnick from Wolfsdorf, and prepare a supply of oats, hay, straw, and food for the men, in the various districts of the town. Lieutenant L——, with a platoon of Troop E, will precede the regiment to Regerteln, where he will watch the Altkirch–Arnsdorf–Wormditt highway and the roads leading to Gronau, Freymarkt, Arnsdorf, and Dittrichsdorf. He will remain there during the night. Troops E, F, and H are designated as outpost troops. Troop E's section of the outpost begins at the creek flowing west of Beiswalde from Scharnick towards Regerteln. The right flank will join the left flank of the outpost of of the 1st Squadron about 1,100 yards northeast of Scharnick. The outpost will extend along this creek past the cross-roads north of Scharnick (which must be permanently held) and to opposite the north side of Scharnick B, which northern side it must locally protect.

"Troop F will continue the line from west of Scharnick B for about 900 yards along the creek. It will locally protect the west, south, and east sides of Scharnick A and B. It will establish a detached post at the western exit of Wolfsdorf to watch the roads leading to Petersdorf, Dittrichsdorf, Kalkstein, and Kleinefeld, and keep up communication with the connecting-post at Pittehnen.

"Troop H, of which one platoon will remain at Kallisten under the immediate orders ol the colonel, will form a section of the outpost extending from that of the 1st Squadron at the south end of the former Lingnau-see past the north end of Zaun-see, to the left of Troop F's section, and will permanently observe the Guttstadt–Kallisten road. The captain will ride ahead to his position at the north end of Zaun-see and will re-

port to me what he intends doing. The troop may draw on Komalmen and Warlack for supplies.

"The necessary detachments will be sent out at once.

"The detached post of Troop F for Wolfsdorf will ride via Waltersmühl–Kleinefeld as a flank guard for the regiment."

Even less than in former cases can the commanders' decisions be looked upon as typical. There is entirely too much room for variations. My dispositions are intended simply to enable the reader more readily to test his own work. If, judging by my dispositions, he concludes that his are practicable, and contain everything necessary, then they are all right.

The lieutenant-colonel and the commander of the 1st Squadron have deferred issuing orders concerning the ways and means of providing shelter and the arrangements for defense. They will proceed to the spot with the troop commanders (ahead of the men) and issue orders in accordance with the nature of the villages and their surroundings. This cannot be settled by the map. In place of this, some remarks will be made that somewhat anticipate the regular course of events. If the quarters lay on the left of the Passarge, or a long ways from the enemy, the superior officers would need to concern themselves only that men and horses obtained good shelter and ample food supplies. Everyone, with the exception of a few guards and sentries, could sleep. The proximity of the enemy to Scharnick and Lingnau calls for greater precaution.

Comprehensive arrangements have been made to watch the enemy and his avenues of approach. A circle of outposts will surround the quarters of the regiment. Still, sudden attacks are not precluded. The patrols might be pushed aside at some point and the outposts be surprised. A sudden attack from hostile infantry, whose nearest bodies are at Schwuben 5 or 6 miles away, is to be feared only in case parts of the chain

of outposts should fail. But it is always possible that under cover of darkness hostile infantry might approach within several thousand yards of the quarters of the regiment without being discovered, when, possibly, the firing of the pickets would give the alarm. During daylight hostile cavalry, dispersing the advanced detachments, might appear in front of the pickets almost at the same time with the report of this advance. A sudden attack by cavalry at night is less likely, because even in open country it would largely have to advance along roads and therefore be discovered in time.

But we must not become pessimistic; such enterprises seldom take place on a large scale in modern war. As a rule, the advantages of success do not compare with the attending dangers; and success often depends on chance and on such an accurate knowledge of the enemy as is but rarely available. And in hostile territory we find the additional obstacles of unknown ground and difficulty of obtaining reliable guides. Notwithstanding all this, we must be vigilant; a single case of carelessness may be severely punished. The English repeatedly found this out in South Africa. Nevertheless, the troops should be allowed as much rest as is at all possible under the circumstances. It is difficult to find the correct middle course. Very properly, therefore, outpost duty is very carefully performed in the German Army; so far only larger bodies of cavalry have suffered from not having sufficient opportunity in this line.

Apparently the village of Lingnau consists of a number of farm-houses separated from the adjoining fields by picket or board fences, and occasionally by a low stone wall. The village street is narrow. The northwest and southeast exits and the east side of the village are most exposed to a sudden attack. The provisional division of the village among the troops into four approximately equal parts forms a good basis for defense. The major will order as follows:

"Each troop will be responsible for the defense of its section of the village. The horses will be mainly placed in the farm yards west of the village street, each troop seeing that exits to the west exist from these yards. Sentries will constantly guard the perimeter of the village. Guards will be located at the eastern side and at the exits of the village. In case of alarm the horses will remain in place under suitable guards previously designated. The remaining men will assemble at their respective troop assembly-places armed only with fire-arms, and will be handled by the troop commanders. A platoon from each of the two interior troops (A and D) will remain on the village street at my disposal. Troop A will keep a sentry-post at the farm-yard about 200 yards in front of the east side of the village. The entrances to the village will be blocked by wagons, but in such a way that single horsemen may readily pass. As far as practicable, a good lighting of the street and farm-yards will be provided for by means of lamps and lanterns. The horses will be unsaddled, unless there should be a change during the evening, bringing the enemy nearer. But several horses must be kept ready for immediate use in each troop. The men will not undress, and will keep their fire-arms beside them for immediate use."

Similar arrangements will be made in Scharnick. There need be no hesitancy about placing the horses under cover in sheds, barns, and stables. For here it is not a question of having the men mounted and ready to move. On the contrary, the better the horses are provided for, the fewer men will be needed to guard them and the better they will be protected from bullets. If we wish to defend the quarters, we cannot at the same time be in the saddle. If we wish to do the latter, quarters cannot be occupied at all, but the command must bivouac with horses saddled and bridled, if necessary. This might be necessary if, for instance, we were opposed to superior numbers of enterprising cavalry with horse artillery.

In such a case the defense of an isolated village might prove the ruin of the bravest cavalry regiment.

The commander may choose between the two alternatives; a combination of the two would lead to half-way measures and uncertainties.

Everything that has been seen and heard of the enemy during the day, and the distance from his outposts, justify the taking of quarters in the two villages, so as not to waste any strength for the coming day.

PROTECTION.

Having previously disposed of the subject of quartering troops because it would be difficult later to interweave this in the study, and because the principles concerned must be familiar to subordinates if they are to act in conformity with the views of their superiors, we now can turn to the duties of individual troops, which afford an opportunity to discuss important questions concerning outposts.

WHAT ARRANGEMENTS DOES THE COMMANDER OF TROOP B MAKE AFTER RECEIVING THE INSTRUCTIONS OF THE SQUADRON COMMANDER AT HEILIGENTHAL?

Troop B, as outpost-troop, will take post in Lingnau at the exit towards Guttstadt. Its section of the outpost will extend from the bed of Lingnau Lake across the Lingnau–Neuendorf highway to the railway, and along this to the Lingnau–Altkirch road (exclusive). There is no road across the bed of Lingnau Lake. According to the map, the meadow in this lake bed is marshy and presumably impassable for horsemen, and during the night also for footmen. It is unlikely that hostile troops will venture on this uncertain ground. The troop commander probably will find out the nature of this underfeature at Heiligenthal. On the supposition that the information agrees with what has been assumed, it will be necessary only to observe this meadow, unless an inspection should prove that other measures are necessary.

The troop commander, who has explained the situation to his officers and non-commissioned officers, therefore orders as follows:

"The third platoon, under Lieutenant R——, will ride ahead to Lingnau, going along the highway as far as the north end of Zaun-see and thence past Height 141, will occupy the exit towards Guttstadt, and temporarily will see to the protection of the regiment's quarters from the north end of Lingnau Lake bed to the Lingnau–Altkirch road (exclusive), which will be occupied by Troop C. A strong picket will be required on the Lingnau–Neuendorf highway. Sergeant N—— and 3 men of the 3d Platoon will ride to Queetz and obtain touch with Troop A, which at 6 p. m. will go thence to Neuendorf and which should be kept in view. He will protect the march of the squadron towards the south between Zaun-see and former Lingnau-see, and will return to the troop at Lingnau as soon as the outpost has been established in this region by the remainder of the regiment."

The captain waits with giving orders about observing the bed of Lingnau-see until he shall arrive on the ground.

Lieutenant R——, covered by a point, trots off almost at the same moment as Lieutenant J——, Troop D, who is ordered to Altkirch, and as the platoon of Troop C which is going to the north end of Jaun-see to act as a protecting force. In this way the three officers have an opportunity mutually to discuss their duties and plans and can agree on a plan for mutual support.

It will be 5.50 p. m. before they reach Komalmen. Behind them they see their squadron following them on the road from Heiligenthal. Continuing their ride, they can see Troop A moving from Queetz towards Neuendorf.

About 6.30 p. m. they reach Lingnau. Lieutenant R—— proceeds to the slight elevation east of the southern exit of the village. From this point he obtains quite an extended view.

It is true that Beiswalde is hidden by Knoll 143 and 133, but to the northeast Altkirch can be seen and beyond to Schmolainen woods (Schmolainer Wald). Almost all of the highway between Guttstadt and Altkirch can be seen, the Guttstadt railway station and church-tower can be seen as well as Neuendorf and the greater part of the railway from Guttstadt to the Lingnau–Altkirch road. South of the bed of Lingnau-lake whose impassability for horsemen in the meantime has been determined, the view is limited by the hills along the former southern shore of the lake.

Lieutenant R—— has half of his platoon dismount at the southeast exit of Lingnau and with the other half rides forward along the Lingnau–Neuendorf highway. The bend of the road, where a field-road leads north towards the railway, seems to him a suitable place for the intended picket, after learning that a ravine in his front, across the highway, is an awkward obstacle for horsemen. He gives Sergeant C—— 12 men and instructs the sergeant as follows (the sergeant already has been informed of the situation in general and instructed about the surrounding country):

"You form picket No. 1 on the Lingnau–Neuendorf highway to protect Lingnau along a front extending from here to the Lingnau–Altkirch road (exclusive). Your picket is not large enough to establish a vedette in the ground north of this highway. For the present it can be seen from here; after dark you must send patrols along the railway as far as the road to Altkirch, which will be watched by Troop C. I shall send you supplies in two wagons, use the latter to block the bridge across the ravine ahead of you as soon as Troop A, now at Neuendorf, returns to Lingnau, but leave a passage-way for patrols. You will inform Troop A of your orders and location."

After Lieutenant R—— inspected the ground along the railway, he returned to Lingnau. It is now 7 p. m. The sergeant whom he left at Lingnau posted several dismounted men

in the farm-yards at the village entrance, and has one man as a lookout in a gable-window affording a good view. The horses are in rear of one of the houses. Sergeant O—— (picket No. 1) reports that Troop A has learned nothing new about the enemy, and that it has orders to return to Lingnau.

In the meantime the squadron commander, hastening ahead of his command, has arrived at Lingnau with his troop commanders, and has informed these of the already described arrangements for quarters and defense.

The commander of Troop B, proceeding with his own duties, has Lieutenant R—— report. Although the space between the highway and the road to Altkirch is not watched by a vedette, the captain does not make any change, because it would take 9 men for a vedette-post and because he knows that another troop will establish a post at the farm-yard about 200 yards east of Lingnau. He personally verifies the correctness of Lieutenant R——'s statement, and of the villagers, that the bed of the former Lake Lingnau will not bear the weight of a horse, but can be crossed only by single footmen, led by a guide. After taking but a few steps the ground gives way under his horse's feet. Therefore the meadow insures against an attack from that direction. But it seems unfortunate that the squadron's position can be seen from the hills along the Queetz–Neuendorf road. It must seem very desirable to prevent hostile patrols from obtaining a view from that direction, and the little wooded knoll south of Number 116 seems to be a good place for a post to prevent the approach of hostile troopers. But the post would have to be quite strong; it would not be advisable to have less than 12 men on account of its isolation. The captain is all the more averse to establishing such a post because its line of retreat, which would have to be either via Neuendorf or past the south end of Lingnau Lake bed, might easily be cut off. He decides to chance it and not send anyone to the exposed point. But the troop on the right

is requested to keep hostile patrols away from the former south shore as far as possible.

The captain sends word to the picket on the highway that it must not build any fire. In other respects he makes no changes in Lieutenant R——'s dispositions, who with the remainder of his platoon forms the exterior guard at the village entrance.

At 7.40 p. m. Troop A arrives at Lingnau from Neuendorf. Its captain reports to the captain of Troop B that no change had been noticed in the hostile position; that Kossen, Schönweise, Klingerswalde, Battatron, and Knopen are not occupied by the enemy; that he had left an officer with a platoon at the Guttstadt railway station, who is to keep touch with the enemy and observe the roads to Schwuben and Wölken; that he recently had seen hostile patrols near Glottau and Queetz; and that he had informed the sergeant of Troop B on the highway between Neuendorf and Lingnau of these details.

The sun set at 7.10 p. m. (central European time). Twilight fell as the squadron located itself in Lingnau. At 8.30 p. m., by which time it was possible to see only a few paces away, lively small-arms fire is heard towards Neuendorf and the flash of shots can be seen. The call to arms is sounded at Lingnau and, as the men hasten to their places along the edge of the village, hostile skirmishers appear out of the darkness on and alongside the road and are promptly fired upon.

What has happened?

Sergeant O——, commanding the picket at the bridge on the highway, after Lieutenant R—— left him, and after he had looked about and posted two men dismounted at the bridge, divided his picket in the following way:

Double sentry-post and reliefs.....6 men.
For messenger and patrol duty.....3 men.
Horse-holders.....3 men.

He designated a slight elevation about 100 yards northwest of the bridge as the place to be occupied as dismounted skirmishers by the 4 men forming the reliefs of the double sentry-post, in case of hostile attack. Then, in accordance with Lieutenant R——'s orders, he sent one trooper to Troop A at Neuendorf and two others to the picket of Troop C on the Lingnau–Altkirch road to assure mutual understanding and become familiar with the ground along the railway before dark. As the sergeant has no map, his instructions concerning the ground and the enemy must be limited to a short statement of what he has learned on the subject, especially the direction where the enemy is. Then he turned his attention to the 10 horses, which he placed in a little depression near the road and just back of the position to be used for firing. As any injuries the horses may have sustained could not be detected in the dark, and it would be difficult to shift the saddles then, he hastened the necessary arrangements and had the horses watered by threes and fours in the ravine on the highway. The reliefs of the double sentry-posts assist in this. A couple of loose horse-shoes were tightened, an inflamed tendon was wrapped in a wet bandage, and a bruise was treated according to directions. The overcoats were put on and the pockets filled with cartridges, and, if there were any oats left in the nose-bags, the horses were fed by threes. The sergeant must not only superintend, but must here and there assist. He had not the time to sharply reconnoiter for the enemy, or to carefully orient himself, any more than to estimate and determine the distance to various points. His work was interrupted by the passing of Troop A and the receiving of information from its captain, as well as by blocking the road at the bridge with the two wagons that came from Lingnau.

Immediately after the return of the patrol and messenger he wanted to have their horses attended to; but Captain E——'s information about hostile patrols having appeared from Queetz and Glottau induced him to send two troopers

to the farm lying about 1,000 yards south of Neuendorf to look about there. They returned very soon at a rapid gait and reported that south of Neuendorf they had encountered hostile patrols. Fortunately the most important work with the horses—the shifting of saddles and watering—had been finished. But three horses were unbridled and were eating from their nose-bags. The sergeant gave the order, "Skirmishers to your post!" and rushed there himself. Behind him the three horse-holders, assisted by the members of the patrol, were busy bridling the horses. The sergeant's eyes were fixed on the enemy. He saw horsemen appear at Neuendorf and dismount; he promptly opened fire on them. Then he called to the members of the patrol that two of them should promptly join him with their rifles. In the meantime the enemy, who had been able to approach alongside of the road under cover to about 300 yards, opened fire. The led horses had become restless when the picket's firing began. They threatened to stampede when several shots were fired from the grove south of the highway and one of the horses was wounded. The enemy at this point partly enfiladed the position of the eight men who were firing. The sergeant therefore abandoned the position and gave the order, "Run to your horses and mount!" On account of the approaching darkness and the enemy's bullets, the order was carried out in some confusion. Only a part of the men succeeded in mounting, and they fled in a northwesterly direction, followed by riderless horses that had escaped their holders.

The episode terminated in a few minutes, so that the hostile skirmishers soon thereafter appeared in front of Lingnau.

It was some time before the lively fusillade from the village could be stopped, notwithstanding the officers' soon discovering that only a few shots were fired in return; and an hour passed before Lingnau and Scharnick, which also had been

alarmed, again became quiet and the picket at the bridge had been re-established.

Apparently a strong hostile patrol had caused the alarm. The actual damage sustained was slight. One man and one horse of the picket had been wounded, and one horse killed. Unfortunately, it was quite likely that the enemy obtained valuable information about the regiment from the calls to arms and the lively fire from Lingnau.

If the fictitious account of this sudden attack on a small scale seems plausible, if it is actually possible to so easily and completely drive in a picket, if it offers so little protection that a hostile patrol can, almost without opposition, come near the quarters of the main body and alarm the latter, then there is something that must be remedied.

The arrangements made for the occupation and defense of Lingnau, according to the theoretical test just described, have proven satisfactory. On account of the definite instructions that in case of alarm the village was to be defended exclusively by fire action and that nobody should mount, it may be confidently assumed that the arrangements would have sufficed in case of attack by complete troops. The reader surely will appreciate the sanity of these arrangements if he pictures to himself what would have been the state of affairs in Lingnau if the squadron after the alarm had tried to mount as rapidly as possible, if the attack had not been made by a patrol, but by a couple of troops. The most complete state of readiness, depriving men and horses of all rest, would not have been able to prevent great confusion. Almost the same disorder would have been produced by a sudden attack on a bivouac west of the village and would have forced the troops to a retreat across country in the dark.

It is self-evident that the main body should not be forced under arms by every enterprise of an intrepid hostile patrol-leader.

We shall thoroughly investigate matters and see whether Sergeant O—— or his superiors are to blame and whether a more careful observance of regulations could prevent the recurrence of such a mishap. Re-establishing the picket-post on the highway, after the hostile patrol has been driven away by bullets from Lingnau, will probably take place under the protection of a line of skirmishers which will advance as far as Neuendorf and not be withdrawn until the picket has been established and instructed by the captain in person. Very likely the captain largely increases its strength, assigning an entire platoon under an officer to this duty.

We usually take special pains to cover a well after a child has fallen into it. He would order the picket commander constantly to keep patrols out in front, especially towards Glottau, and on the road to Guttstadt to keep up communication with the platoon of Troop A at the railway station. Possibly the squadron and regimental commanders will approve of these new arrangements, at the same time not concealing their disapproval that there was not a larger picket under an officer at such an important point from the beginning.

The remainder of the night may pass quietly and the unlucky captain may resolve in the future to place a large picket under an officer on every highway and important road. Will this be a surety that the unwelcome incident will not be repeated? Would it have been avoided if a platoon under an officer had been in the place of Sergeant O—— and 12 troopers?

Both questions can be answered in the negative after very little reflection. The result might have been equally unfortunate if the hostile mounted detachment sent against Lingnau had consisted of 20 to 30 men, or if a body of 10 to 12 troopers encountered a small picket of the German outposts.

A smaller force of hostile troopers might have been less likely to attack the bridge on the highway, and in so far an increased strength of the picket would have insured greater

security. But the fire of a small number of skirmishers was sufficient to make the post untenable as soon as the horses came under fire. It would have been hopeless to post a platoon on every road leading towards the enemy and use up half the regiment on outpost. The actual cause of the damage did not lie in a mistaken estimate of strength. It would be driving out the devil through Beelzebub were we to make the protecting force so strong that but little remained to be protected. Were there no way to overcome the difficulty, the colonel doubtless would have done better to forego the advantages of the Scharnick–Lingnau position and to have occupied the safe quarters on the left of the Passarge. Even a bivouac near Lingnau with horses saddled and bridled would have required the same large force for the outpost as the occupied and defensible village.

A second question is, whether the colonel possibly did not make a mistake when he ordered that Troop A should return to Lingnau from Neuendorf. Had the troop remained at Neuendorf, the picket at the bridge surely would not have been surprised. But in what condition was this troop at Neuendorf? In the saddle since 4 a. m. and reconnoitering by means of numerous patrols riding rapidly in all directions, it has exerted itself more than any other part of the regiment, and by means of detachments (Lieutenant B—— to Heilsberg, Sergeant K—— to Wormditt, connecting-posts at Liebstadt, Gr. Hermenau, and Pittehnen) has given up a considerable number of its men. During the afternoon other patrols were sent out, for the troop had to continue the reconnaissance around the hostile flank and remain responsible that touch is kept with the enemy in the whole district north of Wölken. It probably did not reach Neuendorf with more than 40 or 50 men. If it is to spend the night there, rest and recuperation will be out of the question. It will be impossible to unsaddle at this exposed point in front of the outpost, and while one-half of the men

will be required for fatiguing guard duty, the remainder must remain with the horses, which it may be impossible even to feed and water. Nothing could be expected of the troop the following day. If the troop at Neuendorf affords the regiment greater security from attack on the Neuendorf–Guttstadt highway, it itself is the more exposed to one and its strength would be totally exhausted.

If the regiment were on the left of the Passarge, a reconnaissance troop also would have to remain between the Passarge and the Alle. But this one would be able to select some retired, easily defended place in the woods or near an isolated farm-yard. We would not, for the sake of following the model which requires that a reconnaissance troop be out in front, leave a troop a thousand yards in front of the outpost and, by confusing the objects of the two, make a protecting detachment out of the reconnaissance troop.

We doubtless have become convinced that the colonel made no mistake in his orders to Troop A.

The arrangements for protection made by the colonel and his immediate subordinates but little resemble those described in the German Field Service Regulations as normal formations. According to the latter, the outpost-troops, located in advance of the main body, are the foundation of outpost service—sending out pickets and vedettes. The progressive decrease in size of the detachments to the front, as with infantry, is intended to provide security by a buffer-like elasticity. In the present case this system was impracticable. It would have been necessary to send out at least three outpost-troops: one each towards Altkirch, Neuendorf, and Queetz; and in addition to have strong protecting bodies nearer Scharnick and Lingnau and in these villages themselves. If, in addition, there were reconnaissance troops beyond this outpost, probably not more than one-fourth of the regiment would have been able to rest—an arrangement that would be condemned by any sensible man.

Even under normal conditions—*i. e.*, in a cavalry division—the system of the Field Service Regulations would seldom be used.

As long as a cavalry division is in front of an army, its place of shelter for the night will offer a broad front, or flank, or both, to the enemy. When the brigades of a cavalry division are located side by side, only the middle one will be able to get along with a single outpost-troop. The flank brigades in addition will probably have to employ one or more troops as a protection for flank and rear. If the quartering of troops is to accomplish its purpose, we must not crowd entire regiments or brigades into single villages. Requirements of space and forage are very great for mounted troops. Let us imagine a cavalry brigade (2 regiments) in place of one regiment, and assign it Waltersmühl, Warlack, Scharnick, Lingnau, Wolfsdorf, and Kleinefeld. Six or seven troops, about one-fourth of the whole force, would be required to provide for protection after the manner prescribed in the Field Service Regulations. And if Zaun-see and the bed of Lingnau-lake were not available as obstacles, an eighth troop might be required. If "detached" or reconnaissance troops are added, we see that such an arrangement would be applicable only during short maneuvers and not during a campaign. The disproportion existing between space required for quarters and fighting strength of cavalry calls for economical "housekeeping." This is what was decided upon in the 1st Cavalry. All of the outpost troops except Troop H, whose duties we are still to examine, are quartered with the main body, so as to afford part of their men and horses some rest and refreshment as well as have the men help in the defense of the quarters.

The objection that outpost-troops should not be with the main body might be obviated by not calling them by this name, but simply instructing certain troops to provide the protecting bodies. Then the latter, on account of the small size of the main body, would take the place of outpost-troops. But

in this event the regimental and squadron commanders would dispense with the intelligence and experience of the captains, the effectual assistance obtainable within a troop, and the opportunity the troop might have to do additional reconnoitering. Such an arrangement would help matters theoretically, but not practically.

The arrangements made by our regimental commander and his immediate subordinates are based on the solicitude to avoid scattering and prematurely exhausting the strength of the command; on the urgent necessity to let the greater part rest after the exertions of the day, so as not to be obliged to report on the morrow, as did the German cavalry on August 15, 1870, that the used-up condition of the horses would prevent a charge; and finally, on the conviction that the defense of strongly held localities is the best protection against night attacks. But if we agree with these officers, the question arises whether they would not have done well to send the pickets farther to the front, so as to enlarge the protecting circle, increase the distance of the troops in quarters from the outpost, and increase the time and space necessary in a hostile attacking force to reach the place where the troops are quartered.

However desirable at a first glance the increased distance might seem, it would not materially remedy the evil. The location of outposts primarily depends on the conformation of the ground.

The use of the bed of Lingnau-lake as an obstacle in itself prohibited placing the picket on the Lingnau–Neuendorf highway any farther forward; and the ravine across the road simplified the picket's duties. It would have been necessary to place the picket in rear of this ravine even if the latter had been nearer Lingnau. But a shortening of the line of outposts also is in conformity with economy of men. Even if the ravine had not existed, it is doubtful if it would have been well to push the picket farther forward.

If twelve men at the ravine were not a match for the hostile patrol, twice the number would not have answered the purpose nearer Neuendorf. But had the picket been placed at Neuendorf, it would have been necessary to push forward the pickets of Troop C and thus make use of more men. The farther forward the pickets were placed, the easier could they be driven in. Notwithstanding their being increased in strength, they would not have increased the security of the troops covered.

The cause of the mishap at the bridge on the highway is no more to be found in the colonel's and squadron commander's arrangements than in the smallness of the picket. Perhaps the captain made a mistake not to send out a patrol beyond the picket, as he must have realized that the latter was not strong enough to do so. However, the fate of the picket would have been changed but little by sending a patrol towards Glottau. At the most it would have replaced the two troopers sent forward by the sergeant, who could do nothing but report the approach of the hostile patrol; unless, perchance, by venturing farther forward, it had been driven aside. It was of no consequence whether the report was received by the sergeant a few minutes sooner or later. And it was only a question of minutes, for in the darkness the enemy could not be recognized until quite near. Therefore, the captain's omission did not cause the picket's mishap. Was the conduct of the sergeant and his men the cause?

We cannot accuse the sergeant of violating any provisions of the Field Service Regulations. On the contrary, we may justly claim that he displayed skill and discretion at his post. There is only one thing he did not do: he did not make provision to derive the utmost advantage from his fire-arms. He did not estimate or pace the distances towards the enemy so that every man might use the correct elevation.

Such precaution might have been of advantage with sufficient light to see the sights.

A court-martial trying the case justly would have to take into consideration the work necessary with the horses that required the sergeant's time and attention. The court also would consider that in view of the near approach of darkness, after which these arrangements would have lost their value, they very properly had to give way to the care of the horses, for which purpose the remaining daylight had to be utilized.

Upon the appearance of the enemy the sergeant promptly did all he could. He quickly brought every available rifle into the firing-line, so that he was able to open fire before the enemy. He could confidently omit sending any message to the captain. The firing gave the alarm. It would have taken time, would have interfered with observing the enemy, and would have diminished the small number of rifles by one.

The bullets of the alert picket presumably would have quickly driven away any hostile patrol by chance coming as far as Neuendorf, and Sergeant O—— surely would have been commended for his sensible and determined action. But apparently the hostile patrol attacked pursuant to a previously arranged plan. Dismounting at Neuendorf and enveloping the picket from the south indicates this.

How should the picket have acted under such an attack? The sergeant had received no special instructions for such case. It would be impossible to provide for all possible contingencies. Reason and memory would fail, and surely some unforeseen factor would enter that would upset the most careful instructions. The picket knows that it is to protect the main body against surprise and enable the latter to prepare for action. This is and must be sufficient to act as a guide. At the same time the one giving the order as well as the one ordered must understand that it is not the province of outposts to indefinitely maintain themselves against an attack by superior numbers. Every part of the outpost that is seriously attacked eventually must retreat. It is simply a question of when and how

the retreat will begin. But tactical instructions as well as individual orders often omit a consideration of this point which pertains to outpost service.

Who would censure Sergeant O—— for deciding to retreat when he became aware of the enemy's superiority and of the flanking movement as shown by the enemy's bullets enfilading his line and reaching his horses. If anything, he gave the order to mount too late, rather than too early. To begin an engagement at all with the enemy dismounted and only a few hundred yards away was in itself a very questionable proceeding, because the line of retreat lay across an open field. In such a situation the command to mount lifts the latch and opens the door to confusion. The very best men might lose their nerve if, after hastily firing for a few minutes, they have to run back, followed by bullets, to mount restless and excited horses; and the best of horsemen will not be able to control the herd-instinct of his horse, which will impel it to follow the other stampeding horses.

Therefore, the conclusion of my description cannot be charged with exaggeration. Even by day the ending would have been the same. Darkness at least interfered with the enemy's aim. Daylight would have increased the casualties. The longer the picket remained under fire the worse became its plight. The wounding of a single horse-holder might result in the escape of all the led horses. The procedure, sometimes advocated theoretically, of firing a few well-aimed shots, then quickly mounting, and getting away, might prove very dangerous, when opposed to hostile fire, if the led horses are not perfectly sheltered and if the retreat is not covered in such a way that the retreating horsemen cannot be overtaken by hostile bullets.

What was gained by the troopers' succeeding, notwithstanding all difficulties, in mounting and, turning their backs on the enemy, quickly disappearing in the darkness. Did the picket accomplish its object?

The few shots that it fired at the enemy surely did little damage. Imagine yourself in the place of the dismounted troopers, whose leader from the beginning of the skirmish must divide his attention between the enemy and the led horses and must anxiously watch that he will not give the command to mount half a minute too late. What can we expect of his fire-control? Will his men use the correct elevation and aim carefully? Their scattering fire will simply act as a signal. A few shots fired in the air would have done equally well. It is expected that the picket not only will check a patrol, but also a larger detachment. But here a few hostile troopers—less than are in the picket—are able to clear the way in a very short time.

If we examine the other parts of the so-called line of protection that envelops the regiment, we shall find that in but few places a sudden attack would have fared any worse. The lack of defensive and protecting power in the picket does not seem to have been an exception, but the rule. Likewise, where a main body has obtained protection behind a natural obstacle, outposts as a rule are sent out beyond the obstacle. The pickets of such outposts are in the same situation as Sergeant O—— at Lingnau, and every "detached" or reconnaissance troop camping by itself is expected to protect itself by such pickets, which, however, are such unreliable protectors.

We have already noted that a prolonged resistance not only made mounting the horses very dangerous, but also might have caused the loss of the led horses. The stronger the picket, the greater the troop's danger. It will be very seldom that a place for the horses, protected from all directions, can be found in the immediate vicinity of the place for defense. How far away is it permissible to keep the horses? Even 200 or 100 yards are sufficient to withdraw them from the picket commander's care. But the skirmishers must have them close to the firing-line if they are to be able to begin firing promptly.

In case of sudden attack, they must not be required to run several hundred yards to get into position; and yet their services cannot be spared in providing and caring for the horses.

Would it have been permissible for the sergeant to send his horses back to the troop to be rid of them?

From one-fourth to one-half of the men are needed as horse-holders if the led horses are to be easily moved about, which is necessary in case it is doubtful if the horses can remain where the men dismounted. Thus 3 or 4 men would be needed as horse-holders, reducing the total number of men available as skirmishers to 9 or 8. But what would the captaiu say if in such cases the picket's horses invariably were brought back to the troop, to be again called for as soon as the hostile patrols disappeared? This plan could only be followed by day and over short distances, and would produce unbearable annoyance among the outposts.

We come to the conclusion that the sergeant has incurred no blame, and that neither a strengthening of the picket nor having it commanded by an officer would have positively averted the mishap. Had the picket commander foreseen the disastrous results of his order to mount, he might have decided to abandon the horses to their fate and stand fast with his 8 or 9 men to save his reputation and honor. But what would be the consequences if every hostile patrol could produce such a dilemma with only a few shots?

That optimism brings but poor consolation which would have us believe that such a surprise would seldom happen and that our bullets are as unpleasant for the hostile patrol as theirs are for us. Do we not demand of our troopers that they take advantage of every means to guess the enemy's intentions? Has not the world lived to see the examples of the American troopers and of the Boers, whose achievements largely consisted of such surprises. What right have we to assume that our future opponents will be lacking in similar enterprise and skill?

It is precisely against sudden attacks that protecting bodies are to guard and, if they are not able to do this, then the whole outpost service is a delusion and a snare. Although the garrison of Lingnau occupied the edge of the village in time, it was a question of minutes. Who knows if it would have succeeded had everyone but the guards been asleep. If the pickets are capable of no more than of giving the alarm by firing, there is nothing for the cavalry to do but to camp at a distance from the enemy or behind an obstacle. Then Colonel A——'s decision to spend the night in Scharnick and Lingnau was a venture which placed the night's rest so urgently needed for the morrow's efficiency in the hands of a few venturesome hostile patrols.

We hope that the blue patrols will not be inferior to the enemy in boldness and cunning. At Gr. Buchwalde and Münsterberg, at Schuwben and Lower Kapkeim, they will attempt to see beyond the screen of hostile outposts—wherever woods and twilight will enable them to approach unobserved. Why should not one or the other of them attempt a surprise, like the enemy at Lingnau, to alarm the main body and obtain reliable information about his position?

The patrol would venture much and gain little. A few shots fired at an outpost* do not disturb the hostile main body. No call to arms awakens the men from their sleep. Even the attacked picket is not endangered. It continues firing and, if necessary, falls back until the next subdivision of the outposts comes to its assistance. The intrepid cavalry patrol might congratulate itself if it escapes without serious loss. It has seen and heard but little more than before.

Lack of success was not due to superior efficiency of the enemy, but to his having *infantry* on outpost which cannot be harmed by a little skirmish firing and does not have to look out for *led horses*.

*Infantry outpost in this case.

The reader has long ago guessed at what I am aiming.

If cavalry wishes to secure peace and quiet in its bivouacs and cantonments, if it wishes to be protected from sudden attack and the annoyance of hostile patrols, if it wishes to be able in an important case to halt for a night near the enemy, it must model its service of security after that of the infantry.

"Fire-arms should be the principal means of resistance in all parts of the outposts."* This is the main doctrine of the German Field Service Regulations concerning cavalry outposts, and in harmony with this is the provision that vedettes as a rule will be dismounted.† But there is no intimation what shall be done with the horses that now, when their rapid feet can be spared and the rider leaves the saddle, are everywhere in the way and interfere with the effective and prolonged use of fire-arms. The paragraphs dealing with cavalry outposts take for granted that the horses remain with the riders: "Pickets and vedettes will not unsaddle." . . . "In exceptional cases men detailed to watch the enemy remain mounted." . . . "The picket commander regulates the rest of horses and men, the unsaddling, watering, and feeding."‡

It would be exceptional to depart from these rules. But we have become convinced that as a rule horses interfere with and are an impediment to the proper performance of picket duty. Energetic commanders have taken great pains and endless care in trying to drill their horses so that they could be left with very few men during dismounted fire action. Their efforts have failed. Raising horses in the cultivated lands of Europe and keeping them in farm and barrack stables seems to make it impossible to train them as is done by the Boers in South Africa, on the pampas and prairies of America, and in the Arabian deserts. But even if success should follow continued

*See par. 199, F. S. R.

†See par. 195, F. S. R

‡See par. 199, F. S. R.

effort, very little would be gained for the service of security. We could not prevent the horses of the pickets being reached by hostile bullets, and they could never be quietly led back by a few men when under fire.

The only remedy is to separate the dismounted men from their horses, so that the service of security of cavalry may acquire the benefits of infantry.

Of course there are some objections to this measure. If a trooper is separated from his horse, we relieve him of the responsibility for the horse, which will not be cared for by a strangre as it would by its own rider. The horse is no machine. Its peculiarities, its pains and sorrows are known to and will be respected by him only who is to ride and make use of its strength. And the man whose horse is taken from him also loses control of his horse-equipments, pack and saber. The interior economy of a troop is made more difficult the moment there is any deviation from the principle that every man once and for all belongs to his horse, that only both together represent a cavalryman. This principle has obtained with all nations of riders and was adopted in the service regulations and customs of modern armies, where, so far, it has been almost unqualifiedly recognized. The trooper who was armed only with saber or lance, and possibly with a pistol, when he dismounted, so to speak, had to keep one foot in the stirrup; for only in the saddle was he ready for action.

As until quite recently only a part of European cavalry was armed with rifles or carbines, we find that almost everywhere cavalry pickets and vedettes had to mount as soon as the enemy approached; for the latter, too, only fought mounted.

But to-day we no longer find any cavalryman without a good long-range magazine fire-arm. The dismounted trooper is no longer defenseless. The campaigns in America and South Africa have plainly demonstrated his fighting power with the rifle. This has been clearly recognized in Europe. In the

armies of continental Europe great stress is laid on increased use of fire-arms by cavalry, especially in outpost service. But our cavalry has not yet derived the full benefit of this powerful weapon. We still hesitate to have our cavalry act on foot as extensively as it might. Everywhere we see remnants of inherited customs and rules that interfere with the general use of powder and ball.

The surprise at Lingnau has not fully demonstrated all of the disadvantages due to keeping the led horses with the pickets. There was continuous movement and noise at the picket from the moment it arrived at its post. Any hostile scout soon must have been able to discover the location and strength of the picket from the shifting of saddles, feeding and watering of horses, and departure and return of messengers and patrols. A surprise is the more easily planned and executed because work with the horses absorbs the men's attention. The horses' pawing, neighing, and snorting resounds far into the night and interferes with hearing sounds from a distance. The stronger the picket the louder the noise produced. As shifting of saddles, feeding, and watering can be attended to for but about one-fourth of the horses at a time, and takes about half an hour for each party, a long time is required to complete this work; and the horses must again be fed and watered before sunrise. There is always something to be attended to with horses, if greater damage is to be avoided. The men detailed as horse-holders cannot attend to their duties all night long; but, as a rule, only the reliefs of the double sentry-post and occasionally a messenger are available to relieve and assist them. There is hardly a man who will find time to sleep. Tired and sleepy men will be posted as sentries, and equally tired ones will have to look out for the horses. Guard duty will suffer under the continuous mental and physical strain and disturbances, where bright eyes and keen ears are so urgently needed.

And at dawn an exhausted man will mount an equally exhausted horse.

Now let us imagine a picket whose horses have been left with the troop. Nothing will prevent the leader and his men from giving their entire attention to guard duty from the first and continuing to do so to the end. The sentries can easily be concealed—in case of necessity, a bush, a slight depression in the ground, or a roadside ditch will answer. While the leader from an elevation is scanning the surrounding country, his men, without being interrupted by other work, can prepare the place for defense and estimate distances. In a short time everyone becomes familiar with the locality, and arrangements for the night are quickly made. In place of haste, noise, and confusion, we have order and quiet. It will be difficult for hostile patrols to discover the location of the picket or discover its strength. Their long-range fire, which might prove dangerous for led horses, will be harmless. If they carelessly come too near, they are more likely to be hit by the deliberate fire of the alert sentries or the picket than by the hasty firing of men called away from their horses. It also will be more difficult for the enemy to attack the concealed and poorly-reconnoitered picket unexpectedly, than would be the case with a group of restless led horses seen at a long distance. Should the enemy nevertheless proceed to the attack, he will be met by well-aimed fire, and that not only for a few seconds or minutes. For, in place of the anxiety about the led horses ordinarily in the leader's mind, and which constantly made him remember that under no consideration must he be too late in giving the command to mount, he simply need endeavor to hold his post as long as possible. His picket will be able to offer a prolonged and obstinate resistance. There is no longer any danger from surprise. The enemy must develop a superiority of force and execute his flanking movements beyond rifle range and with a loss of time. If the picket is finally

forced to retreat, its resistance is not yet ended. Its next halt to fire forces the enemy to halt again and make new arrangements. A knowledge of the ground also will insure advantages for the picket over the assailant.

It is only under these conditions that the picket commander can see to it that the troops in rear of him are not surprised. It is only now that he can insure them the necessary time to get ready for action.

The psychological element plays an important and decisive part in every branch of warfare; therefore it demands its rights also in outpost service. The most courageous patrol-leader, the man who in an attack does not know the meaning of fear, may become timorous and vacillating if, on outpost duty, he does not know whether he is to stay and fight or to mount and ride away.

But there is no longer any room for doubt if the horses are taken away. A knowledge of what is expected of him will cause even the less resolute man to follow the right path. During the course of a protracted campaign a cavalryman will often be on outpost, and the feeling of depression and lack of confidence he there encounters must act unfavorably on his *morale* and shake his confidence in his leaders. He is similarly affected by the nervousness that often enough prevails in the main body the moment firing is heard, when everyone knows how little dependence can be placed in the outposts.

The moment it is decided to withdraw the horses from the advance part of the outposts, these anxieties disappear and are transformed into their opposites. The duties devolving on the individual trooper on outpost increase his confidence in his fire-arm and in his own power. The cavalry sentry who heretofore had to fear that an alarm might be caused by any shot fired, now may cheerfully fire on every venturesome foe that comes within reach; knowing as he does that a few shots

no longer will cause any commotion.* But the enemy who several times has felt the effect of well-aimed bullets will stay farther away and see less. As there will be fewer opportunities for successful surprises, there will be fewer occasions when the night's rest will be disturbed. At times it may be an advantage to have the pickets mistaken for infantry and thus deceive the enemy as to the real state of affairs. We learned this to our sorrow when German patrols on August 15, 1870, reported the existence of French infantry pickets on the Yron, north of Mars-la-Tour, when for a fact they consisted of dismounted cavalry. This report helped to confirm the German generals in the erroneous impression that the French Army of the Rhine was retreating from Metz towards Verdun.

So far duty with a cavalry picket kept the men constantly occupied. Those not on post or on patrol duty were busy with the horses. If the latter are taken away, the men can obtain some rest and the following morning will be fairly ready for duty on rested and fed horses.

If 12 troopers seemed too few for the picket at Lingnau, this number might be sufficient if only 2 of them retained their horses for messenger duty. Then 10 men with rifles in their hands, camping in the defensive position, will be constantly available for fire-action. The vedettes of 3 men each can be reduced to double sentry-posts as in the infantry—quite an appreciable saving of men. Actual patrol duty—the reconnoitering undertaken to increase the degree of security—will continue to be the province of the outpost troops (supports). Patrolling necessary within the outpost can be done by men on foot. This also will increase the amount of protection and saves men. Mounted men are not suited for this duty at night off the roads in diversified country.

We remember the misgivings that deterred the commander of Troop B from placing a picket on Queetz–Neuendorf road

*But see par. 130, F. S. R.

although it was very desirable to prevent hostile patrols from getting a view of the region about Lingnau. A mounted picket stationed there was in too exposed a position.

But there would seem to be no objection to sending a few dismounted men with a guide across the meadow to the grove south of Number 116, as in case of necessity they can return the same way. Bullets from their rifles would, as long as it is light—*i. e.*, as long as the view is to be denied—keep the enemy at a respectable distance. Separating the horses from the men here also insures greater efficiency in command and facilitates adjusting means to an end.

The swampy meadow now becomes an obstacle for the enemy alone, and not for our own men.

According to the principle of the German Field Service Regulations that "the arrangements and instructions should be regulated by the special circumstances of each case,"* there is no doubt but that the regulations permit the proposed changes. But it is not included in the teachings of these regulations, which offer no inducement or means for applying it. We therefore fear that without additions to the regulations the proposed change will seldom be adopted, possibly not at all until we have paid dearly for experience in the field.

The evils with which such a change burden the interior economy of an outpost troop are fully offset by the extraordinary advantages to be derived from it. Arrangements will be possible whereby these evils can be modified, possibly by detailing the care-takers for the horses that have been left behind from the same squad or platoon. If an outpost troop has 25 men on picket duty, only about one-third of the men left behind will have to care for an extra horse. Thus the men would not be overworked. The slight inconvenience that each man separated from his horse must also give up his pack can be overcome. The overcoat, canteen, and mess kit can be taken

*See par. 128, F. S. R

along, the same as the extra cartridges. Of course there can be no cooking at the picket. Even the infantryman sometimes is separated from his pack without disadvantage. The troop officers will have more to do looking after horses, packs, and arms, but this will be counterbalanced by the increased fitness of the rested horses. The trained cavalry horse is an expensive article and hard to replace. Especially those armies that make war against an enemy superior in cavalry are called upon to make extra efforts to preserve and care for the horse.

The proposed change will not only benefit the horses on outpost, but the entire cavalry. For, more frequently than not, even when conditions might have required a bivouac in snow or rain with horses saddled, the increased protection will admit of placing the horses under cover, or at least protecting them against the wind and unsaddling within inclosures.

Let us briefly summarize the benefits to be expected from the proposed change:

The stationary detachments of the advanced part of outposts, and directly concerned with the service of protection—the pickets, Cossack posts, and vedettes—as a rule, perform their duty dismounted. Their horses, sabers, and packs remain with the outpost troop. The picket commander may retain his horse if it will lighten his duties. Such mounted messengers as may be necessary will be with each picket. Reconnoitering towards the enemy is, as a rule, the duty of the outpost troops (supports). Each vedette, as a rule, will consist of 2 men. If we wish to insure it greater power of resistance, or avoid having the reliefs travel long distances, it is changed into a group consisting of a leader and 6 men (the vedette and its reliefs). The messengers, who also can be used as visiting-patrols and for short reconnaissances, will mount whenever the picket prepared for action and will take

charge of the commander's horse. They will then act as a combat-patrol.*

The purpose of the attack of the hostile patrol on Lingnau calls attention to another point that so far has hardly been mentioned. Of course the sudden attack could not have been made with the idea of obtaining any material tactical advantage. It was simply hoped and expected that the patrol would find out the location of the 1st Cavalry, touch with which had been lost. Presumably it would have attained this object, even if driven back by the picket on the highway, if at the same time every trumpeter in Lingnau and Scharnick had sounded "to arms." Not the eye, but the ear of the hostile patrol-leader would have recognized the situation, and long before midnight they would have had the desired information at Münsterberg. The trumpet-calls also would have alarmed all detachments sent out from the regiment and possibly have induced them to take all manner of entirely unnecessary measures. The example, the same as experience in war, shows the disadvantage of giving warning by signals, that, resounding through the night, betray more than by day. The German troops are drilled in still alarm, which on an occasion like this, where so many men are awake, can be given almost as quickly as the alarm by trumpet, and causing less unnecessary excitement. It should be habitually used with the outposts and advance cavalry, and it would have been no mistake if Colonel A—— had ordered that the calls of "to horse" and "to arms" should never be sounded except by his express order.

We can examine the case in hand to see what improvements will result from the application of the above principles. A satisfactory solution and criticism of an outpost-problem is possible only on the terrain; but for our purpose a few ex-

*They remain mounted, as far as practicable, and on the flanks, conveying information required by signals previously agreed upon. (See par. 821, Cavalry Drill Regulations.)

planatory remarks about the map will answer. Knoll 143 affords an extended view in all directions. We can see Neuendorf, the Guttstadt railway station and church-tower, Altkirch, Schmolain Woods, Regerteln, Sommerfeld, Lauterwalde, and Petersdorf. In the immediate foreground we see Beiswalde and its cross-roads, the road to Altkirch and the railway—of the latter only a short distance is hidden by the woods along the road to Altkirch. We can also see the Scharnick–Regerteln highway and the creek between it and the Lingnau–Beiswalde road. The creek forms an obstacle for horsemen because the meadows are wet and marshy. The remaining cultivated land and meadows as far as Beiswalde and east of Lingnau can be crossed by men on foot or on horseback, while the large meadow east of the railway and north of the road to Altkirch cannot be crossed by mounted men. The two groves on this road consist of tall firs without undergrowth. The small buildings near the Lingnau–Beiswalde road are huts and sheds belonging to peat-diggers.

DESCRIBE THE OUTPOST ESTABLISHED BY TROOP C, FIRST CAVALRY.

Knoll 143 is by far the best point for a picket. Even by night the road to Beiswalde can be well watched from that point. The knoll affords an excellent position from which to fire in case of attack. But another post will be required on the road to Altkirch, as otherwise the railway and the two groves would greatly facilitate a stealthy approach and surprise by the enemy.

A suitable arrangement would be as follows:

The troop will post a picket of 1 officer, 1 non-commissioned officer, and 20 men, including 2 mounted messengers, at Knoll 143, which will be charged with the protection of the entire space from the road to Altkirch to the creek, where the next troop will join with its outpost. The picket commander

places a Cossack post (1 non-commissioned officer and 6 men) in the grove on the road to Altkirch, close to the railway crossing, to watch the road and railway and observe the region towards Beiswalde.

The picket would be posted on the southern slope of Knoll 143, with a vedette (2 men) on the knoll itself. Communication is established with the outpost on the left by means of mounted messengers and they are informed that the section between the road to Beiswalde and the creek will be watched by dismounted patrols. The messengers' horses will find protection at night in the small building just southwest of the knoll. The officer after having inspected the terrain, especially along the road to Altkirch, can send his horse back to Lingnau. The troop at regular intervals will send out mounted patrols to the front.

There is no doubt but that the picket will afford good protection for the squadron at Lingnau. Neither the Cossack post nor the picket itself can be readily dispersed. Every hostile detachment will be detained for some time. And if the protecting bodies must retreat before superior numbers, the latter will be prevented from rapidly advancing by being repeatedly fired upon.

To prevent the retreating bodies coming into the line of fire of the outpost troops (supports), they would best move towards a flank of the latter. Therefore the picket would retreat in a westerly direction and the Cossack post through the southern grove.

As we have seen, a mounted picket would have been forced to retreat much more promptly. The enemy might reach the village with the picket. Caution would dictate that the mounted picket would be pushed farther towards Beiswalde, and at least 12 mounted men would have to be posted in the road to Altkirch. The picket itself could not consist of less than 20 men, of which from 5 to 7 would have to act as horse-

holders and 2 as messengers. Notwithstanding the increased number: 32 men instead of 20, and 32 horses instead of 2, protection is less assured, and every troop commander knows what it will mean the next day if 30 of his horses have been with the pickets the night before or not.

Another example may be taken from the duties assigned Troop H, which will more nearly come under regulation formations than was the case with the others.

The lieutenant-colonel had issued the following orders (see page 216):

"Troop H, of which one platoon will remain at Kallisten under the immediate orders of the colonel, will form a section of the outpost extending from that of the 1st Squadron at the south end of the former Lingnau-see, past the north end of Zaun-see, to the left of Troop F's section, and will permanently observe the Guttstadt–Kallisten road. The captain will ride ahead to his position and at the north end of Zaun-see will report to me what he intends doing. The troops may draw on Komalmen and Warlack for supplies."

The captain knows that Troop F's section is to extend from west of Scharnick B about 900 yards south along the creek, and that the bed of Lingnau-lake is guarded by men of the 1st Squadron. He also knows that, for the present, Troop D is at Rosengarth as reconnaissance troop. If the latter goes to Scharnick for the night, it will still be responsible for keeping touch with the enemy.

The troop commander orders one of his officers to take a detachment and attend to securing supplies from Komalmen and Warlack. He ordered the commander of the 2d platoon to ride with it to Height 138 near Queetz (R. G.)* and thence to cover the march of the regiment towards the southeast. The captain with several men rode around Zaun-see and met the lieutenant-colonel at the north end at 6.25 p. m. During

*_Ritter-Gut_, knight's manor.

his rapid ride he obtained only a general idea of the country whose hilly nature interfered with obtaining a good view. From Knoll 141 there is a view to be had in all directions. The large village of Queetz is visible, but only a small part of the Queetz–Ankendorf highway east of the latter village is visible. To the southeast Knoll 138 near Queetz (R. G.) and the rise of ground on the Queetz–Neuendorf road limit the view. Apparently only the low-lying parts of the small strips of meadow between Zaun-see and the former Lingnau-see are impassable for horsemen. But the creek flowing towards Scharnick from Zaun-see partly has steep banks and again is bordered by swampy meadows, so that horsemen are entirely unable to cross it and footmen can do so only in a few places. The farm at the southern end of Knoll 141 has a large enclosure with several barns and stables.

The other farm-houses past which the captain rode are small and poorly built.

WHAT ARRANGEMENTS WILL THE CAPTAIN OF TROOP H MAKE TO CARRY OUT HIS ORDERS?

The reader is not expected to rack his brains over this. The problem is quite simple. The solutions will be very similar —viz., a line of protection between Zaun-see and the former Lingnau-see and a picket on the highway near the north end of Zaun-see. There is no need to go into details.

From a number of about equally good arrangements I select the following:

	OFFICER.	N. C. O.	PRIVATES.
Picket, No. 1, on the Scharnick–Komalmen highway, near the north end of Zaun-see	–	1	12
Picket, No. 2, at the southern one of the two farm-yards near the southeast end of Zaun-see	1	1	15
Cossack post, No. 3, on the Scharnick–Queetz road near the farm-yard at the south end of former Lingnau-see	–	1	6
Total	1	3	33

After deducting the platoon at Kallisten, in addition to the above, there will be in the troop about 1 officer and 40 men.

Opinions will differ as to where and how the remainder of the troop shall be located.

It should not be too far from the highway, because a night attack would confine itself to the best roads. But there also are roads leading directly from the hostile position via Queetz to Scharnick. The troop must also be ready to oppose the enemy between Zaun-see and former Lingnau-see. Therefore we must look for a place for the troop in the vicinity of Knoll 141. There we can choose between bivouacking in the open or cantoning in the large farm-yard at the south end of the knoll. It will not be difficult for the captain to decide, when he considers what he must do to defeat a hostile attack. He can have no doubt but that this must be done with his fire-arms. How many men would be available for the firing-line if he decided to bivouac? There would be 37 horses from the pickets in the bivouac in addition to the 40 of the troop itself. If the horses were to be sent back to Scharnick, not more than 20 men would be left for the firing-line. But if the captain decides to occupy the farm-yard, he can have the horses tied in barns and stables, leaving them in charge of a small number of men, and have considerably more men for the firing-line; either to advance to the assistance of his pickets or to have them fall back on his own position.

In a few minutes he would be able to reinforce the picket on the highway, for the road can be very effectually swept by fire from the north end of Zaun-see. How long would it have taken him to bring order out of the confusion of his picket-line in a bivouac. and get a few skirmishers on the firing-line. He would not have to devote his attention to the enemy, but to his frightened tangle of horses and men; while a cantonment in the farm-yard would not cause any delay in meeting the enemy. No matter where he bivouacked, hostile patrols could discover

his location. But neither eye nor field-glass would be able to discover what is within the farm-yard.

If the captain understands that his troop is to be looked upon as a body of cavalry that is to fight on foot with horses to remain stationary, he will not hesitate to take advantage of the protecting walls of the estate. And he will not be tempted to think that under certain conditions he ought to mount. Such action simply would lead to half measures and weaken the defense, which alone can save the main body from surprise. He and his men must not think of their mounts until the enemy has been defeated. The more rifles that are brought into the firing-line the quicker will this be accomplished.

A guard with a double sentry will protect the troop. A lookout should be placed in observation on Knoll 141 or in a dormer window.

On account of the nearness of the troop, the pickets will not have any mounted messengers; only the officer commanding picket No. 2 will be permitted to keep a horse with his picket. He will constantly have a dismounted patrol (patrolling-post) of 3 men on Knoll 138 near Queetz (R. G.) to observe Queetz and the Guttstadt–Heiligenthal highway, and to drive back hostile patrols. From time to time the captain will send small mounted patrols to Heiligenthal–Ankendorf and to Queetz, possibly even farther, to keep up communication with Troop F or the detachment left behind by that troop.

If the pickets are forced to retire before superior numbers, they will fall back firing: No. 1 towards Scharnick, keeping west of the highway to continually flank this, and not to mask the fire from Scharnick. Picket No. 2 will hold a position on the heights of the eastern shore of Zaun-see; the Cossack post will remain on the Queetz–Scharnick road. Picket No. 1 will barricade the bridge on the highway at the north end of Zaun-see with wagons obtained from Warlack.

In estimating the strength of the covering detachments, it was taken into consideration that picket No. 1 would need a double sentry-post and a few men as patrols, and that picket No. 2, aside from the permanent patrol of 3 men at Knoll 138, would be able to get along with a double sentry-post. Our system is even better adapted to the normal situation of the troop at Zaun-see than to the unusual one at Lingnau, where part of the outpost troop was quartered with the main body of the squadron. In the present case the protecting bodies would have to be very negligent if a surprise should succeed here. And in that event this negligence would be to blame, and not the system. But if we were to think of the pickets—possibly strengthened—with their horses present, there need be no neglect of duty to enable a reckless hostile troop to break through the outposts at some point and seriously disturb the regiment's rest at night.

On account of the advanced position of his command, the colonel considered it necessary to protect himself also towards the west. A careful investigation will show that besides the guards and sentries in Scharnick, there will be needed a picket of 1 non-commissioned officer and 12 men at the intersection of the Scharnick–Regerteln and the Wolfsdorf–Lingnau highways, and a Cossack post of 1 non-commissioned officer and 6 men south of Scharnick.

The following, therefore, would be the force used in the service of security—*i. e.*, pickets and Cossack posts:

	Officers.	N. C. O.	Men.	Horses.
1st Squadron	1	3	38	4
2d and 3d Squadrons	1	5	51	1
Total	2	8	89	5

This would be only about 8 per cent of the whole force—a very low figure, taking into consideration the proximity of the enemy and the necessity for outposts all around the regiment.

If the horses were to remain with the pickets, from 30 to 40 additional men would have been needed to retain the same number of men in the firing-line; and yet there would not have been the same security as is produced by the smaller number without horses. Instead of 5 horses, there would have been from 130 to 140 saddled and bridled in the open during the night.

A glance at the detached bodies, the reconnoitering detachments, and detachments necessary to keep up connection with the army corps will show how desirable it is to save the regiment this expenditure of strength.

There is a platoon at the Guttstadt railway station, another at Altkirch, and a third at Regerteln. Troop G, even if it goes to Scharnick for the night, must leave a platoon or several large patrols out in front. A platoon is divided between Kallisten and Sackstein. There are connecting posts at Wolfsdorf, Pittehnen, and Liebstadt; strong patrols have been sent via Guttstadt towards Heilsberg and Wormditt, and an officer with several men has gone to corps headquarters at Mohrungen. Altogether, these detachments may amount to about two troops, whose horses will largely remain saddled and in motion.

The more enterprising the regimental commander is, and the more he aims to accomplish, the more gladly will he take advantage of every means to avoid unnecessary expenditure of strength, and the more welcome will be a regulation of the daily recurring outpost service, which will not only save a number of men in the pickets, but also will assure the main body quiet nights, rest, and recuperation.

Detached Bodies.

We shall more readily find out whether the above named detached bodies are necessary and judicious, whether their strength has been correctly determined, and what is the nature of their duties, by examining these duties in detail.

Lieutenant J—— has been sent to Altkirch with a platoon of Troop D (3 non-commissioned officers and 28 men). He is ordered to watch the Guttstadt–Sommerfeld road, the crossings of the Alle below Kossen, particularly the two bridges at Schmolainen, and the roads to Liewenberg, Sperlings, and Launau in front of the outpost. The platoon is to remain at Altkirch during the night, and is under the immediate orders of the squadron commander (see page 215). Lieutenant J—— knows that Troop A will march to Neuendorf as reconnaissance troop and probably will spend the night at Lingnau, but that at the same time it will be responsible for reconnaissance towards the enemy on the front of Wölken–Kossen. He also is familiar with the orders of the platoon of Troop E that is going to Regerteln. The simultaneous departure of both these platoons and the detachments bound for Lingnau, and their traveling over the same road via Komalmen, enabled the officers to discuss and agree on a plan of action.

Lieutenant J—— sent a lance corporal and 1 private along to Regerteln; they are to find out the location of the platoon at this place and then report to him at Altkirch. Two men of the platoon of Troop E accompany Lieutenant J—— to Altkirch for a similar purpose. He sent a non-commissioned officer and 1 man to Troop A at Neuendorf with orders to inform the captain of the platoon's orders and to request information about the troop and the enemy. The non-commissioned officer is not to leave Troop A until it is decided whether the troop will remain in Neuendorf or not. Then he is to follow the road leading from Neuendorf to the west exit of Altkirch and reconnoiter the country along this road, particularly the water-course, the meadow land, and the bridge.

At the north end of Zaun-see, Lieutenant J——, with the other officers bound for Lingnau, went via Knoll 141 to the road leading to Lingnau. He learned that the platoon of Troop B intended posting a picket half way between Lingnau and

Neuendorf, while the platoon of Troop C intended remaining at Knoll 143 and sending forward a Cossack post on the road to Altkirch as far as the railway. The horses of these pickets were to be sent back to their respective troops at Lingnau. Lieutenant J——, with a point moving far ahead of his platoon, continues his ride from Lingnau to Altkirch, on a stretch of road that can be seen from the heights along the Guttstadt–Sommerfeld highway. At 6.45 p. m. he arrived at the western exit of Altkirch and views the surrounding country from Knoll 118. The point, which has trotted ahead to the eastern exit, reports that nothing can be seen of the enemy. Through individual troopers it has been ascertained that the low ground extending from the former Lingnau-see towards Altkirch can be crossed by horsemen on the bridges only. The village president, who has been called up, reports that early in the morning a hostile patrol coming from Schmolainen rode through the village and went towards Sommerfeld; and that during the forenoon a few more hostile troopers rode through the village. He knows nothing more about the enemy. Upon inquiry he states that at present the Alle is an impassable obstacle for footmen and mounted men, being everywhere over 9 feet deep; that the wooden bridges at Schmolainen are intended for light teams and are in good condition; that the bridge north of the Schmolainen forester's house ("Schmolainen F." on map) is a foot-bridge; and that while the bridges at Zechern and Launau also are of wood, they are adapted for heavy teams. Wichertshof Forest (Wichertshofer Forst), as well as Schmolainen Woods (Schmolainen Wald), consists almost entirely of fir-trees. The latter is village property, the trees being of various sizes and with heavy undergrowth. The meadows west of Windenhof and the drainage ditches running thence to the Alle, as well as the creek east of the highway, flowing southeast, are obstacles hard to overcome by cavalrymen.

Lieutenant J—— examines the country in every direction without discovering anything suspicious.

WHAT ARE LIEUTENANT J——'S ARRANGEMENTS AND INTENTIONS?

Naturally, Lieutenant J—— would think of his plans during the ride. If he has not had any experience in war, he may think his problem not a difficult one. A recollection of field exercises and maneuvers he has attended will serve as a foundation for his plans. In the above-named peace-training near garrisons the end would be attained by stationing the platoon at Altkirch and sending out patrols, radiating in the directions indicated to him. Possibly the officer also debated whether it would not be practicable to send these patrols ahead at an increased gait so he might the more promptly receive their reports. But the horses have had a hard day. They would have gained but little headway, and a gallop would have consumed too much of the strength they will need during the night and early next morning. In thinking over the instructions to be given the patrols, he would remember that it would be necessary accurately to tell these where they or their messages would be able to find the platoon. It is true that the squadron commander's orders designate Altkirch as the station of the platoon, and accordingly in time of peace there would be but little objection to the platoon commander's making arrangements with that in view as soon as he arrived at the north end of Zaun-see. Even should the platoon encounter the enemy before reaching its destination, the provisions of the Field Service Regulations will protect him from bodily harm, and his patrols likewise will not get hurt by the harmless maneuver-enemy. In spite of all this, Lieutenant J—— would be able to reach the vicinity of Altkirch and wait for his patrols.

In time of war it is doubtful if he would be able to reach Altkirch, and still more so whether he could stay there.

The officer therefore concluded to delay sending out patrols until after arriving at Altkirch and finding out how matters stood there.

This moment has arrived and the patrols can be sent out as soon as he has decided where to locate the platoon.

But even an officer experienced in war now would encounter difficulties calling for his entire skill. Shall he stay at the western exit of the village? All the roads coming from the enemy unite here, and the messenger route to the rear is well protected. Knoll 118 affords a good view limited only by the village close in front. But at night no view can be had from the knoll, and hostile detachments will be enabled to approach under cover of the village. A sentry-post at the eastern exit will not prevent this, for there are roads leading to the village also from the south and the north. The sentry-post would be nearly 900 yards from the platoon, would with its reliefs require 6 men, and would not make it possible to do without another double sentry-post at the western exit of the village. Thus the platoon would have to use 12 of its 28 men for its own protection. Besides, the officer would want to keep the Guttstadt–Sommerfeld highway under his personal observation.

A location at the eastern exit of Altkirch seems more advantageous and in time of peace could be selected without delay; especially as in all probability the platoon could be quartered in buildings. Here a double sentry-post would provide the necessary protection and the highway will be so near that nothing on it will escape the notice of the vigilant officer. In spite of this he has his doubts. He remembers a number of instances in military history where small bodies of cavalry were surprised, mainly because they were located within inclosures. Even by day sentry-posts had not always prevented such surprises. He remembers the case of Count Zeppelin at the beginning of the Franco–Prussian War and the sad experiences of the English in South Africa. The danger is greater

in hostile territory, but it also exists here. If Lieutenant J—— and his platoon belonged to the enemy, and had he from the heights near Gronau observed a detachment of cavalry reach Altkirch and send out patrols from the east end of the village, thus disclosing the location of the detachment, would he not think it practicable to surprise the detachment? Might not the enterprise bring him glory and honor and be of considerable advantage to his general? There certainly would be some prisoners captured. Scattering the hostile detachment would clear the way as far as the hostile outposts, would disturb the rest of the latter, and prevent reconnaissance—an advantageous and sometimes quite bloodless achievement.

The village is much too large to enable the platoon to watch all avenues of approach, and in the darkness the enemys' attack would almost immediately follow his discovery and the call to arms. The sound of approaching horses would not justify opening fire, for friends might be approaching instead of an enemy. There would be no certainty except close at hand.

The small farm-yard, about 200 yards north of the eastern exit of the village is a better place. But the village is so near that it would have to be kept under observation. And the farm-yard easily might be surrounded if the enemy should discover that the platoon went there.

It would seem that one of the small depressions in the open would be a more suitable place. It is true that such a place, too, might not escape the enemy's notice, and in hostile territory there would be danger from the inhabitants of the village.

We might expect the officer to choose the expedient of remaining under the cover of Altkirch until dark and not take up the position for the night until then. This position must not be too far away from the roads uniting at Altkirch; and it will become known to the inhabitants of the village. Any careless deed or word might do harm even in friendly territory. There

are others besides prudent men in the village. Communication to the rear and with your own patrols is not absolutely certain in such a retired place. Is it not possible that some horsemen will miss the way across country? Nevertheless, in some cases it is a practicable scheme, especially on the score of safety, and will prevent hostile scouts from discovering the place by day.

Let us suppose that the officer, after leaving a non-commissioned officer and 1 man on Knoll 118, decides for the present to remain at the eastern entrance of Altkirch, covered by houses and trees—at a point where the village street to the rear can be plainly seen—and after dark, go to a swale about 450 yards north of the village near the wind-mill alongside the highway. He does not select a position south of the village, because movements there are hampered by ditches and marshy meadows, while north of the village even outside of the village, a horseman can easily reach Knoll 118 and the road to Lingnau. The selection may not be entirely satisfactory to the officer, but in case of necessity the lesser evil must be chosen.

Not until now, when every man knows where the platoon can be found at night, may the patrols be sent out.

Three directions are to be considered: via Peterswalde–Zechern towards Sperlings and Launau, via Schmolainen towards Liewenberg, and towards Kossen–Guttstadt.

It is true that Kossen lies within the district of Troop A, but as neither it nor Guttstadt are permanently occupied, but are only kept under observation, this direction must not be neglected. In addition, the southern bridge across the Alle near Schmolainen should watched.

Such of my readers as have worked out the details of Lieutenant J——'s problem, including the details of patrol duty, or who may still undertake it, will find that it is a hard nut to crack.

The patrol sent via Zechern must reconnoiter the vicinity of Sperlings and Launau and is expected to watch the bridges across the Alle at both these places. This might be accomplished if the main body of the patrol remained at Zechern or Peterswalde and sent single troopers to Sperlings and Launau, who could be relieved at intervals.

At least 3 men would be necessary as main body, 4 for reconnaissance, and 2 for messenger duty. Thus 1 non-commissioned officer and 9 men would be the least number permissible, and their orders would be about as follows: "You will ride via Peterswalde to Zechern, reconnoiter the vicinity of Sperlings and Launau, and permanently observe the bridges across the Alle at both these places, as well as the roads leading thence via Peterswalde towards Altkirch. You will remain out all night and report to me where you take station. Hostile patrols are to be defeated, if possible; prisoners are wanted. You will retreat to this point before superior numbers."

Notwithstanding the comparatively large size of the patrol, which might be called a detached post or picket, a great deal is expected of it. Its orders are comprehensive; only at rare intervals will its members, with reins over the arm, be able to sit down and rest awhile. Sleep is entirely out of the question and feeding almost equally so.

The patrol sent via Schmolainen towards Liewenberg can be smaller. It is simply to find out if the place is occupied by the enemy or what is known of him there. But it is undesirable to send less than 4 men if any messages are expected from it. It is 7 miles to Liewenberg and, both as a precautionary measure and to save the horses, the patrol would best proceed at an ordinary gait.

Then, too, the people at Schmolainen and the foresters along the highway must be questioned. The patrol will hardly reach Liewenberg before 9 p. m. or return before midnight. Is it safe to leave the bridge across the Alle east of Schmolainen

unguarded in the meantime and after the patrol's return? The patrol during its ride to Liewenberg easily might be forced aside, and there is also a possibility of hostile parties approaching from Sternberg and Stolzhagen via O. F.* Wichertshof. A guard must be left at the bridge, and it would be folly to expect 2 or 3 men to perform this duty from 8 p. m. until morning. They would fall asleep in spite of the greatest devotion to duty, and a sleeping guard is worse than none. A double sentry and its reliefs are necessary; *i. e.*, a leader and 6 men. In case of necessity they also can be required to watch the southern bridge across the Alle, as the only road over it leads past Schmolainen. Of course the post is exposed to a surprise by a hostile patrol coming from Schmolainen woods or Guttstadt. Before establishing itself at the eastern edge of Schmolainen, two of its men can ride to O. F. Wichertshof to reconnoiter the road to that point and get information of the enemy.

Then, two or three times during the night a patrol should be sent to Guttstadt and Kossen and to keep up communication with Troop A. Six men are necessary for this purpose.

This is about what might be Lieutenant J——'s first project of what is desirable. In figuring up he finds as follows:

	N. C. O.	*Men.*
To be sent to Zechern	1	9
To be sent to Liewenberg	–	4
To be sent to Schmolainen	1	6
To be sent to Kossen–Guttstadt	–	6
Total	2	25

Only 4 men of this number, the second and third reliefs of the patrol for Guttstadt, will be with the platoon, which thus will consist of 1 non-commissioned officer and 7 men. Of this small remnant there are, at present, 1 non-commissioned officer and 1 man at Regerteln, 2 men at Neuendorf, and 2 men at Knoll 118. The project is impracticable. During maneuvers

**Ober Försterei*, head forester's house.

or field exercises a remedy could easily be found. In such a case 1 non-commissioned officer and 3 men would be sent to Zechern, 2 men to Liewenberg, 1 non-commissioned officer and 4 men to Schmolainen, and 4 men to Kossen–Guttstadt. Thus there would remain with the platoon 2 non-commissioned officers and 17 men; it could post a double sentry (6 men, with reliefs), and the officer would retain 1 non-commissioned officer and 9 men to use as he thought best. But such scantiness will not do in war. Nowhere would there be any assurance of an orderly attentive performance of duty.

If the non-commissioned officer near Zechern stations himself south of Dittchen Krug and barricades the bridge across the Alle west of Sperlings with a couple of wagons, a double sentry-post may be able to protect the remainder of the men and watch the bridge. It will also be possible to watch the Launau–Freymarkt road. But, after the day's exertions, the men on sentry duty will not be able to perform their trying duty for more than two hours. If they are not then relieved, they cease to be of any use, even if they should manage to keep on their feet. If the detachment consists of 9 men, four passably alert eyes and ears now assume the duties and, after two hours more, a third relief, while the non-commissioned officer has three men left to use as messengers or for patrol duty towards Launau or Sperlings. Four or five rifles are at all times ready to fire a few shots to check hostile detachments or defeat a patrol.

The trouble is that the power of resistance is too weak. For there is nothing gained by running away from every little patrol and reporting its presence to regimental headquarters. If there is nothing following tbe patrol, they don't want to be aroused at Lingnau or Scharnick. But the thing is to discover larger bodies in time. How can 4 men at Zechern or 2 at Liewenberg or 4 at Schmolainen solve the problem?

If they did not quit their post on the approach of every hostile patrol, but concealed themselves to allow such patrols to pass, so as to get a glimpse behind the latter, we could not hope for reports. For during the night messengers cannot gallop across country, and the beaten track is blocked by the enemy who has passed.

The convenient peace expedient of reducing the number of men of individual detachments cannot be used in time of war. We must look for other means.

The officer is right in thinking of having stationary posts at Zechern and Schmolainen. An occupation of the bridges across the Alle would insure a degree of safety not otherwise attainable. But if there are not enough men to establish such posts, then the question arises whether patrols will not answer. One of these would have to ride via Peterswalde, Zechern, and Sperlings to Launau and return via Dittchen Krug. It must consist at least of a leader and 3 men if it is to be able to continue its work after sending back a messenger. A second patrol, sent via Schmolainen to Liewenberg, examining the bridge north of F. Schmolainen and returning the same way, could not be any smaller than the first. In addition, two patrols of 3 men each would be needed, one going to O. F. Wichertshof—and possibly returning across the bridge at Kossen, the other via Guttstadt–Neuendorf. That will take 2 non-commissioned officers or lance corporals and 12 men. After deducting 6 men for a double sentry, the platoon will have 1 non-commissioned officer and 10 men left.

The two patrols last named may be expected back after $1\frac{1}{2}$ hours, and shortly thereafter other men must be sent out in the same direction. Possibly this time only 4 men will be sent, of whom 2 will go as far as Schmolainen to watch the bridge across the Alle until midnight, while the other 2 will watch and listen for two hours at Weidenhof. At midnight these must be relieved, and at 2 a. m. the 6 men first sent out

will again go on duty. The two curtailed reliefs take 8 of the 10 remaining men of the platoon.

The patrols to Launau and Liewenberg have long distances to go; the one 15 miles, the other 17 miles. The first may return by midnight, the other by 1 or 2 a. m. At this time it will seem most important to the officer that reconnaissance be continued beyond the Alle, but he has only tired men and horses left, who either have been on patrol duty or on sentry-post half the night,

If the duty assigned the platoon is to be carried out by patrols, fresh and capable reliefs must be sent out before the return of the first ones. Otherwise the roads and bridges will remain unobserved for hours.

The reliefs would have to leave for Launau and Liewenberg as early as 11 a. m. But the commander will be able to provide them only in case he omits the reconnaissance towards Kossen and Guttstadt, and only occasionally sends 2 men to Schmolainen. In this case there would be 18 men on the road most of the night and only 13 with the platoon, 6 of the latter being necessary for a double sentry-post, and 4 would form the reliefs of the patrol sent to Schmolainen.

It would be self-deception in the platoon commander to expect better results from such an arrangement than from the preceding estimate based on maneuvers which he had to reject as being unsatisfactory. The small patrols would have to give way before every hostile patrol, the same as the small stationary posts. Whatever may be following such hostile patrols will remain undiscovered. The men cannot even listen in the saddle. The creaking of leather, rattling of iron, breathing of horses drown all distant sounds. The entire force is almost constantly in motion, and if there is any break in the complicated apparatus, if one of the patrols remains out too long, other men must be sent out who have hardly dismounted.

The squadron commander's purpose in sending Lieutenant J—— to Altkirch seems to fail on account of the distances to be covered. Apparently he has overestimated the capacity of a single platoon. For an instant the young officer regrets not to have asked for a larger force before leaving Heiligenthal. But he quickly becomes consoled. He mentally hears his commander's answer: "Do the best you can, the remaining troops must rest," and is glad that he raised no objection. He will do the best he can. He again begins to consider. Was it inevitable that his platoon would not suffice for effective sentry duty on the Alle; that small posts would be useless; and that repeatedly covering the roads by small patrols would not answer? Then it might be permissible to carry out only the principal part of his instructions.

The platoon can furnish a picket at Schmolainen and send patrols every two hours towards Peterswalde and Kossen, respectively. In this way it would keep its horses in fairly good shape and be able to send two patrols of three or four men each to Liewenberg and Launau. At least the two nearest bridges over the Alle would be permanently guarded and the principal part of the orders would be carried out.

But this solution does not completely satisfy Lieutenant J——'s ambition and sense of duty. He pictures to himself the possibility of a hostile expedition coming within his reach; for example, that hostile troops of cavalry were to advance that evening via Peterswalde towards Altkirch. In this event, of what service would his platoon be to the regiment? Should the enemy happen to meet one of the patrols sent out every two hours, he would closely follow it to Altkirch, where he would be able quickly to overcome the resistance of the platoon in the open and arrive shortly after it at Lingnau. The sole use of the platoon would have been the gain of a few minutes for preparation by the troops in Lingnau in addition to what they would otherwise have had.

Was such an expenditure of strength necessary for the sake of such a slight return? Is not the main body sufficiently protected against surprise by its outposts, whose horses are not with them? The officer follows up this idea. The regimental commander must have had something else in mind than a second line of outposts in front of the first. The latter must answer to prevent surprise. The detached bodies are to serve another purpose. They are to assure the colonel freedom of action, so that he can oppose his own enterprise to the enemy's and not be limited to the defensive. If he gets timely information of the enemy's advance, it will be for him to choose between receiving the enemy with dismounted fire action, avoiding him, or meeting him in counter-attack. No one is more easily surprised than he who expects to find the enemy asleep.

Although detached bodies doubtless increase the security of the main body from surprise and from annoyance by patrols, this alone would not warrant the attendant expenditure of strength. Half the force, if with the outposts, would do vastly more good for protection than far to the front, where these small bodies are exposed to the danger of being destroyed or of becoming useless by being pushed aside. They are not intended to form a barrier, but to act as eyes, ears, and feelers.

Lieutenant J——, to whom this becomes clear after considerable thought, may finally ask himself why he was not ordered to find the enemy. If, instead of remaining at Altkirch, he were allowed to continue his ride, and, going via Schmolainen towards Liewenberg, he should discover the enemy there, while a flank patrol found Launau and Sperlings unoccupied, the colonel could have word of this shortly after midnight, and the platoon, remaining in the vicinity of Sperlings, might continue in observation of the enemy. This positive result would be more valuable than the exhausting waiting and

watching at Altkirch with its doubtful subdivision into small posts and patrols.

But should the courageously advancing platoon miss the road on which the enemy is approaching? Suppose that the enemy, coming via O. F. Wichertshof, arrives at Schmolainen while Lieutenant J—— trots to Liewenberg, or that the enemy, advancing via Peterswalde, pushes aside the flanking patrol. The colonel does not want to know whether Liewenberg or any other point is occupied by the enemy, but he wants to have his feelers on all roads over which the enemy might approach.

It is not to be denied that active reconnaissance is also desired towards Liewenberg. But, as a rule, explorations by night attain results only in time of peace, when no bullets are flying and camp-fires can be seen afar off. A few shots that blaze up somewhere in the darkness, a few riders whose horses' hoofbeats are heard, do not clear up the situation; it is not until dawn brightens the eastern sky that exploring tours are worth while. The thing for Lieutenant J—— to do until then is to detect hostile movements in his territory as soon as possible; and to report such so promptly that the regimental commander may be able to assemble his troops before the enemy arrives in the vicinity of Lingnau.

None of the projects that the lieutenant's ingenuity so far has devised will answer this purpose. With tenacious self-control he again thinks the matter over. As he has become satisfied that his platoon can accomplish but little if he strictly confines himself to the letter of his instructions, it may be possible to accomplish more if, keeping only the ultimate object in mind, he tries to follow the spirit instead of the letter of these instructions. Could not better advantage be taken of the opportunities offered along this part of the Alle by carrying out the instructions if the platoon were posted elsewhere than at Altkirch? Should the squadron commander chance to come that way, would he not approve an intelligent suggestion by

his subordinate for a change of location? To ask the question is to answer it affirmatively. The more the assurance prevails in an army that independent action will be acknowledged if it furthers the object, the better will it be for the common good.

The squadron commander had to decide by the map, and at the first glance Altkirch, where all the roads within the platoon's district came together, seemed to him the most suitable station. Should he hear of the difficulties caused by this part of his orders, he surely would offer no objection to a suitable change. We can learn from this that commanders of such detachments should be allowed a certain discretion in the choice of the station of their commands, and that it would have been well if the place had not been so specifically named in the orders.

Being satisfied in his own mind that it is permissible for him to deviate from his superior's orders, Lieutenant J——'s previous careful considerations now quickly help him to a decision. He will have the platoon stay at Schmolainen, sending 1 non-commissioned officer and 12 men to Zechern.

The following arrangements are planned for Schmolainen: the two bridges over the Alle will be barricaded, the southern one as securely as possible, the northern one in such a way as to leave an opening through which single horsemen can pass. A dismounted double sentry-post will be established to guard the latter bridge. The platoon itself will be located at the southern exit of the village. A single sentry, dismounted, will be posted near it on the small knoll, whence the northern and western exits of the village and the short stretches of roads as far as the forest can be seen. Both these exits are barricaded with wagons, leaving only small passageways.

The detachment intended for Zechern accompanies the platoon as far as Schmolainen, having a patrol go from Altkirch to the Schmolainen–Peterswalde road, where it is again to join the detachment. Thus the non-commissioned officer learns by personal observation where the platoon will be located and can

point out the messenger-route to his men. The lieutenant will direct him to ride carefully and as much hidden as possible, going alongside of the roads and not through Peterswalde, but along Zechern woods in which he can conceal himself at any moment from hostile view. Only a couple of troopers can be sent through Peterswalde, especially to find out what the inhabitants know of the enemy. It is important to question the inhabitants of Zechern and Dittchen Krug and, if possible, obtain information in Launau and Sperlings by means of voluntary messengers. Advantage can be taken of such in friendly territory, but cautiously, for the messengers must be reliable persons and must not disclose anything about us. The non-commissioned officer is advised to barricade the bridge across the Alle at Zechern in such a way that removing the obstacles would take some time and make some noise. The officer thinks that the detachment might find a good location for itself north-east of Zechern, close by the bridge, with a single or double sentry-post as guard. If the non-commissioned officer has a few boards placed across the small creek running alongside into the Alle, dismounted patrols would have to go only a short distance to the vicinity of Dittchen Krug to control the road leading to Launau. But, warned by his own experience, Lieutenant J—— does not positively designate the place, but authorizes the non-commissioned officer to decide according to circumstances. He impresses on the latter that the detachment must hold its ground against small hostile detachments; that the approach of larger detachments should be detected and reported; that prisoners are very much wanted; and that the discovery of the first hostile patrol must be reported, because so far the enemy has not been seen in the vicinity of Sperlings and Launau. Messages are to be sent to Schmolainen, but messengers must be instructed to go to Lingnau in case they should not find the platoon at Schmolainen or if they are forced out of the way. As the detachment consists of 12 men,

the instructions can be carried out, particularly if the non-commissioned officer can depend on his own watchfulness. If the detachment is stationed close to the bridge, a single sentry-post will suffice, for the horse-holders also are awake. Two men are sufficient to constantly watch the highway at Dittchen Krug. This would leave 8 or 9 rifles ready for action at Zechern bridge, for the non-commissioned officer also would use his rifle. The detachment would obtain supplies from Zechern.

Lieutenant J—— would have 2 non-commissioned officers and 16 men at Schmolainen. Nine men are needed as sentries and their reliefs. The remainder will be sufficient for a reconnaissance to Kossen and a renewal of communication with Troop A as well as inquiry at O. F. Wichertsdorf. In addition a stealthy patrol on foot can go across the Alle from time to time and observe the highway.

Lieutenant J—— sends a report of his arrangements to the squadron commander and requests that the outpost troops watch the Guttstadt–Sommerfeld highway and send their patrols as far as Kossen and Schmolainen. The foot-bridge north of F. Schmolainen is made impassable by countrymen under supervision of a non-commissioned officer.

Lieutenant J——'s arbitrary action was not of great moment—he simply advanced his position a little over a mile from Altkirch—and yet, much was gained by it. Even now the platoon's location has some weak points, but it is reasonably certain that a hostile advance would be detected by the time it reached the Alle and be checked for awhile. A report of this would be sent more rapidly over known roads than the enemy would be able to advance; and the regimental commander would receive it as promptly as would be possible under existing circumstances. In place of a division into a number of small groups and patrols which could not be supervised, we have a division into two groups having some power of resistance. It is doubtful if every one of the numerous patrol

and post commanders, that would have been needed under the other arrangement, would have been equal to the occasion. Now the lieutenant need intrust only the most circumspect and reliable non-commissioned officer with an independent task of any consequence. Instead of continuous movement and disquiet, we have rest and quiet. Whereas at Altkirch it was almost impossible to conceal the position of the platoon from the view of hostile scouts, the platoon can now withdraw from view into Schmolainen Woods, and cannot be easily detected either at Schmolainen or Zechern. Although the men may not be able to get much sleep, the horses will not be worn out by morning. Food and the replenishing of nose-bags are assured.

No matter how thoroughly convinced we may be of the wisdom of Lieutenant J——'s final conclusions, they form but a slight basis for other cases. Every new case presents new difficulties. This at once becomes evident if we think of Lieutenant L——'s task, who is sent to Regerteln with 25 men of Troop E to watch the Altkirch–Arnsdorf–Wormditt highway and the roads leading to Gronau, Freymarkt, Arnsdorf, and Dittrichsdorf. It is true that in one of the farm-yards of Regerteln he will find a suitable location for his platoon, and one more easily defended than that of Lieutenant J—— at Schmolainen; but his district is so extensive, the number of roads to watch is so great, and they diverge so much from each other that he must have recourse to other means. He cannot take advantage of an obstacle like the Alle River, to seize the enemy's avenues of approach with one or two groups. There probably will be nothing left for him to do but to keep up a system of patrols in his district from a station at Regerteln. Whoever will take the trouble to examine just how this service can be performed will become convinced that notwithstanding the most careful and economical arrangement and greatest self-denial, but little can be done, and that the following morning horses and men

will be worn out and unable to further exert themselves. When we consider that the troopers can see and hear but little in the darkness, that they and their messages will be deflected if hostile patrols are met, that they will be late in recognizing and reporting large hostile bodies, and that they will be unable to check such bodies, the advantage that the lieutenant-colonel hopes for in sending the detachment to Regerteln becomes very doubtful.

Putting ourselves in the place of Lieutenant J—— at Schmolainen, we realized his mental labor and did not arrive at a satisfactory solution until we ventured to change his instructions on the supposition that the squadron commander, if he chanced to be present, would approve of the liberal construction, the departure from the letter of instructions, and the advance of the platoon to a point beyond Altkirch. Lieutenant L—— at Regerteln would in vain look for a similar alternative. He hardly would improve matters were he to advance to near Sommerfeld, or even beyond that point. He would not be spared the fatiguing and largely purposeless patrolling in various directions during the night; and it would be more difficult to protect the station of the platoon. And yet there is a way that would better serve the purpose for which this detachment was made and be in harmony with the occupation of Schmolainen and Zechern by Lieutenant J——. If the officer could decide to advance to Freymarkt, occupying one of the farm-yards outside the village and near the road, and place a picket under a non-commissioned officer at Mawern, every advance of the enemy by night would be quickly detected and checked. The road would be barred for hostile patrols and messengers, and a connecting-post would be formed for the messages of Lieutenant B——, who was sent towards Keilsberg. Only the roads leading northwest from Regerteln would remain unobserved. But on these nothing need be feared except the troop which was defeated at Pittehnen on the morning

of May 5th, and the outposts of the regiment would afford ample protection against it, especially if the outpost troop at Scharnick sends a picket to Arnsdorf for the night.

But it is not to be expected that Lieutenant L—— will so radically change his instructions. Even if he had sufficient discernment to see the advantages of an advance to Freymarkt, he would hesitate to recommend it to his lieutenant-colonel. He would have to base his recommendations on general principles, and not on local conditions which his superior could not perceive. No matter how respectful the form might be, the recommendation would convey criticism. Do the lieutenant-colonel's arrangements deserve censure? The regimental commander's orders were: "In front of the outposts, the roads to Freymarkt and Wormditt and the Guttstadt–Kallisten highway must be carefully watched." It must be admitted that sending a platoon to Regerteln, where the roads from Gronau, Freymarkt, and Wormditt come together, seems to comply with the orders in a formal way and conforms to peace practice. It is true that the lieutenant-colonel listened to the orders given the commander of the 1st Squadron and knows that the latter is to watch the bridges over the Alle below Kossen as well as the roads to Liewenberg, Sperlings, and Launau. But he hardly could anticipate that this would result in the permanent occupation of the bridges at Schmolainen and of Zechern. In discussing their plans before leaving Heiligenthal, the commander of the 1st Squadron certainly only stated that he would send a platoon to Altkirch. Thus a platoon sent to Freymarkt would have been considerably beyond the sphere of the regiment, and its communication with Scharnick could not have been considered safe. Therefore no blame attaches to the lieutenant-colonel's action.

We must look higher for the cause of the neglect. Although the regimental commander was justified in ridding himself of the details of the service of security, still, the fundamental

instructions for the observation of the country and roads north of the place of cantonment should have emanated from him. We see that he retained control of the two reconnaissance troops sent respectively to Neuendorf and Rosengarth. Only he surveyed the entire situation. Co-operation among the different parts of the regiment in the area of reconnaissance could be attained only if his orders read: "The 1st Squadron will take charge of reconnaissance towards Stolzhagen–Heilsberg, and will send detachments of observation to the crossings of the Alle below Kossen, particularly to Schmolainen and Zechern. The 2d and 3d Squadrons will reconnoiter to the north and northwest, and will occupy Freymarkt with a detached post, commanded by an officer."

The lesson we learn from the theoretical examination of a supposititious individual case probably would come to the colonel only with war experience, where after a few days' trial he becomes satisfied that his horses are being worn out by the patrolling at night, and that this work is of but little value. But we must not too severely criticise his mistake. Our regulations lay such stress on the value of supplementing arrangements for protection by patrolling, they so greatly emphasize the necessity of also sending out cavalry patrols by night, they so lighten the duty of such patrols in peace maneuvers by belittling the effect of hostile fire, that we cannot wonder at the strong hold that peace training has. We are so accustomed to the appearance of hostile patrols within our reach that we consider it unavoidable, and underestimate the resulting damage—do not try to avoid it—and simply try to do the same with reference to the enemy. In time of peace 3 men at Freymarkt and 3 men at Zechern accomplish as much as 10 or 20 men, and their messages frequently pass unmolested through the opposing troops. Of course, under such favorable conditions a very small number of troopers would be able to carry on patrolling by night at Altkirch or Regerteln. Their tired horses

would remain with the train the following day. We do hear complaints even at maneuvers of the large number of horses that have to fall out, but the evil is the more readily endured during the short period of autumn maneuvers because, as a rule, a disproportionately large force of cavalry is available, and the easy marches back to garrison, and the rest enjoyed there, usually mend the damage.

Moreover, it is probable that placing the platoons of Lieutenants J—— and L—— but a few thousand yards in front of the outposts was due to the expectation that they would add to the security of the regiment in its cantonments. A firm belief in the protecting power of the outposts was lacking. The platoons at Guttstadt railway-station, Altkirch, and Regerteln, respectively, in a certain measure form a second line of outposts catching the first impetus of hostile enterprises.

The increased power of resistance of outposts when rid of their horses make such subconscious cautionary measures unnecessary. We arrive at the conclusion that the one error is contained within the other. The increased reliability of the outposts extends the activity of the reconnoitering bodies, which now unhesitatingly may be sent to important distant points.

They will better answer the purpose of security than mounted patrolling by night, and the rapid wearing out of trained horses will be checked.

The comparatively sure night's rest for our detachments at Schmolainen, Zechern, and Freymarkt will make them serviceable for reconnaissance work at daybreak, while keeping on the road at night would use up their strength. They would have to be relieved in the morning and would reduce the fighting strength of the troops.

It is self-evident that, as a rule, the horses of reconnoitering bodies cannot be placed in stables or barns; that they can be fed, watered and have saddles shifted singly, only, so that the detachment may be able to quickly mount and get away.

MODERN METHODS OF FORWARDING INFORMATION AND ORDERS.

Our attention has been repeatedly called to the necessity of quickly and safely forwarding to higher authority the information gathered by the cavalry, for the most brilliant results in reconnaissance are of no value if they are not reported in time. But we also recognize the difficulties to be overcome in accomplishing this object. It was not until near 5 p. m. that Colonel A—— heard what his reconnaissance troops and patrols learned about the enemy by 3 or 4 p. m., and his important report on the infantry outposts at Schwuben–Wilhelmsthal will hardly reach corps headquarters at Mohrungen before 8 p. m. And it probably will be 8 or 9 p. m. before a report can be sent that will show that the regiment actually is cantoned at Lingnau and Scharnick and what the situation until evening is with reference to the enemy. It is true that connecting-posts have been established at Wolfsdorf and Pittehnen as a precautionary measure, and from Liebstadt there even is telegraphic communication, but it will be 11 p. m. or midnight before they learn at corps headquarters how things are at the extreme front. Were we in hostile territory and unable to make use of the telegraph from Liebstadt, the information would be delayed 1½ or 2 hours more. A knowledge of whatever may happen at Guttstadt during the night or early in the morning, no matter how important it may be for the commanding general, would not reach Mohrungen until after headquarters had departed.

The same unfavorable conditions obtain with reference to information or orders intended for the 1st Cavalry. Whatever cannot be sent from Mohrungen before midnight probably will not reach it on time. For Colonel A—— will want to get up earlier than the enemy, and, when he and his men have mounted, a messenger probably would not overtake him until it would be too late to change the direction of march.

But why resort to mounted messengers? They were used as long ago as the days of Alexander, Xerxes, and the Pharaohs. Why does not Colonel A—— make use of the inventions of modern times, the field telegraph, heliograph, night lamp,* signal flag, wireless telegraphy, or bicycle?

Let us see what use the colonel could have made of these.

Visual signals were out of the question from the beginning. Science has devised ingenious and very portable field signal apparatus useful even in our latitude under our cloudy skies and at night. It is even hoped to utilize it in connection with officer's patrols and reconnaissance troops. But even if Colonel A—— had had such apparatus, it is evident that a complicated and extensive system of signal stations would have been necessary. While under favorable conditions communication can be had over a distance of 30 miles† with the signal lamp, it is necessary that there be no intervening obstacle to the transmission of the rays of light. Sender and receiver must be able to see each other. As Gr. Hermenau could not be seen even from the church tower of Mohrungen, Colonel A—— would have needed three stations for this short distance if he had been in hostile territory and unable to make use of the railway telegraph. It is true that in our case the first signal station could have been established at Gr. Hermenau. Continuing the march, the Teufelsberg would have been the place for the second station if Gr. Hermenau could be seen from it. As the regiment advanced via Pittehnen, a third station would have been necessary at Wuchsnig and a fourth at Elditten.

During the afternoon, after it had been decided to advance to Scharnick and Lingnau, a fifth station could have been shifted

*Acetylene lanterns are used by our Signal Corps. For an interesting description of these and of "Field Equipment of Signal Troops" in general, see Major G. O. Squier's pamphlet of the Infantry and Cavalry School on this subject.—*Translator.*

†"Heliograph messages have been sent over distances of 180 miles." —*Squier's "Field Equipment of Signal Troops."*

from Kleinefeld to Wolfsdorf and a sixth from Waltersmühl to Lingnau, to establish communication with the cantonment. The observation station at Teufelsberg had to be abandoned during the forenoon on account of hostile patrols, and it is likely a station at Wuchsnig would have shared the same fate. This would have interrupted signal communication and it is doubtful if it would have been resumed again. Stations using heliograph or lantern within reach of hostile patrols are the more exposed because the light rays from mirror or lamp betray their location from far off. To protect them from surprise, a force would have been necessary that could not have been spared by the regiment. If they are to be combined with connecting-posts, they would have to be located near good roads, where it probably would have been difficult to find good viewpoints.

It would have been difficult to carry enough illuminating material on the saddle to last more than a few hours, which therefore would have been the length of time during which signalling could have been carried on in case there were no sunlight. The Morse code is used in signalling. The receiving station reads letters and words from the longer or shorter interruptions of rays of light. The signalmen must have a thorough knowledge of the code to avoid mistakes. We know how easily in time of peace errors and mutilations creep into telegrams that would be fatal in time of war. How much greater will be the danger if the message must be repeated by four or five stations, and how much time would be consumed by this? Besides, it is quite possible that a message sent, for example, from the heights near Kleinefeld to Lingnau will be read by the enemy. Remember that the rays of light can be seen 30 miles.*

*In the late war in Manchuria the Japanese practically used only the field telephone and telegraph as a means of communication, and with most excellent results. Had the inhabitants been hostile or the Russian cavalry more enterprising, some other method of communication might have been necessary.—*Translator*

It takes too long to explore a signal route, and the apparatus is too uncertain, complicated, and dangerous for use under such conditions without also having a system of connecting-posts alongside. But if the latter had to be established, Colonel A—— could not assume the responsibility of making further detachments to establish a signal line, using lamp or heliograph.

Still less could signal flags have been used, for on a clear day they could be seen only from 1½ to 2 miles.*

Visual communication was excluded, as well as the carrier pigeon, which can be used only in familiar territory. What use could be made of wireless telegraphy? The apparatus of this newest of implements has been recently so much improved that its transportation is no longer difficult.† In Part I. I referred to the danger of the enemy's intercepting wireless messages. This danger seems to have been removed. It is believed that a remedy has been found by changing the pitch of the electric waves. Only an instrument of the same pitch as the sending station can receive the message, and it is possible that the enemy will not pitch his instruments the same as our own. This would be a great step in advance. In addition to this, an understanding of the message might be prevented or made more difficult by sending it in cipher.

But there are other difficulties that have not been removed. During an approaching thunder-storm communication frequently is interrupted and becomes dangerous. But, above all, messages dispatched at the same time interfere with each

*It is not known how large these flags are, but our 4-foot flags on a 12-foot staff can be read plainly as far as 7 miles on a clear day. (See page 19, Squier's "Field Equipment of Signal Troops.")—*Translator.*

†Sets now under construction for our Army, and to be transported on pack-mules, "aim to still further reduce the weight of the complete equipment, which will be contained in one small pack-chest, made like a trunk, * * the weight being about 140 pounds, not including the small portable battery." (See page 14, Squier's "Field Equipment of Signal Troops.")—*Translator.*

other. If the electric waves of one instrument encounter those of another (of the same pitch) both messages become unintelligible. The waves spread themselves over a distance of more than 60 miles.* If wireless telegraphy is to be used, its use must be restricted to a few stations and fixed hours. It therefore can be used, for the present, only between higher commanders. If patrols should be permitted to use it, we should open the door to endless confusion. Cavalry far in advance, and having reached the vicinity of the enemy, probably would make the best use of wireless telegraphy by disturbing the enemy's system in case it could not read his messages.

A wireless telegraph station must have a wire projecting upwards several hundred yards,† carried by a balloon or kite. A kite can be used only in case the wind is favorable. Using a light wagon with the apparatus, the station becomes movable and along roads can even follow cavalry. But what cavalry leader would want to set up such a conspicuous standard or carry it about with him announcing from afar to every hostile scout, "Look, here I am"? And it would be foolish to try to deceive the enemy in this way.

Therefore, aside from other circumstances that would thus far limit the usefulness of wireless telegraphy for general application in an army, cavalry in the vicinity of the enemy would be able to use this means of communication only at night. Our regimental commander certainly would have left a wagon

*As the distances to which wireless messages may be sent depend mainly on the power of the transmitting station, these distances easily may be vastly increased. At Fort Leavenworth, in 1906, wireless messages were received from ships in the Gulf of Mexico. In July, 1908, a wireless message was received at San Diego from our fleet 3,000 miles away.

†The elevation of the wire in part regulates the distance to which messages can be sent. For short distances the elevation need not be as great as above stated. Major Squier discovered that a vigorous growing tree, preferably well covered with leaves, formed excellent receiving antennæ. A nail being driven into the tree some distance from the ground, the nail is connected through a small pocket electrolytic receiver with an iron pin driven in the ground.—*Translator.*

with wireless telegraph apparatus with the baggage train, the same as wagons with canvas pontoons; for movements across country, whose direction, duration, objective, and rapidity no one can foresee, and which may also result in unfavorable encounters with the enemy, must not be hampered with teams. Thus, as there would have been no receiving station, there would have been no use taking along apparatus for patrols, aside from the fact that the kites of the latter could be carried along only on wheels, and that it might have been impossible to fly the kites when wishing to telegraph. Wireless telegraphy in part is still a thing of the future, and for the present is not suitable for the use of small bodies of cavalry.*

Communication by telegraph wire is more valuable and has been more thoroughly tried.

The fitting out of cavalry with instruments and wire is intended more to enable a rapid repair of existing lines than construction of new ones, and must be so considered; for only a small amount of material is carried along and the building of a new line would take too much time and would separate the workmen and tools from the troops.

If the line is to fulfil the desired object, it must remain in operation until the departure of the command from its cantonment or bivouac; and who can tell whether or where the wagons with the batteries, instruments, and personnel will be again found, if the latter is obliged to take up again the wire strung the preceding day or night?

Anyway, the cavalry of European armies is equipped so that it can construct considerable distances of new line, and devices have been invented that make it possible to construct lines in a short time. Two different kinds of apparatus are used in Germany: the light field telegraph, and the patrol

*This was sent to press in August, 1904. Since then considerable progress has been made in the perfection of wireless telegraphy, as is shown by Major Squier's already mentioned pamphlet.—*Translator.*

apparatus. The former makes it possible to use the ordinary Morse tape record* and forms a reliable means of communication. Insulated wire is used with this. According to the latest regulations, each (German) cavalry regiment (600 sabers) carries along such an apparatus and the prescribed amount of wire: about 12 miles of wire, and 400 yards of cable for use in water; also about 18 miles of plain patrol-wire. All this is carried on a two-horse wagon. The patrol apparatus is arranged only for telephone, microphone, or buzzer service.

A thin uninsulated wire is used for the line. Each (German) cavalry regiment has two such apparatuses and all told about 4 or 5 miles of wire carried on horses and in charge of a telegraph-patrol (4 non-commissioned officers and 4 men).

A (German) cavalry division (2 brigades of 2 regiments each) has additional instruments and telegraph-wire in the tool-wagon of its detachment of pioneers.

The 1st Cavalry (belonging to the blue army) had no unusual means of communication by wireless telegraphy with it.† The regiment could not have carried along any wagons necessary for wireless or other telegraphy. They would have ham-

*The signals are received on a strip of paper and are recorded in ink.

†In our Army organization there is no provision for permanent signal work in a regiment of cavalry other than the requirement that two men in each troop shall be instructed in signalling. If any men and apparatus of the permanent establishment were to be with a regiment, they would have to be detached from the mounted company of the signal corps belonging to a cavalry division, or from the company belonging to an infantry division.

Major Squier, in the pamphlet already quoted, says: "It is believed that two of the present cavalry buzzers (one set) should be issued to every company of infantry and every troop of cavalry in our service, for use in their own interior intercommunication, in addition to all other methods of information furnished them from the outside by signal troops. * * * This instrument is especially adapted for rapid field-lines, such as used in service with the cavalry screen or with outposts, etc., where light field-buzzer wire, laid directly on the ground, may be used." This wire is partly insulated and weighs 5 pounds per ½-mile coil. This wire is "paid out or recovered from a hand or breast reel, carried by a mounted man."—*Translator.*

pered to movements, would have necessitated various measures for their protection, and would have been lost in case of an engagement. It would hardly be permissible to let such wagons immediately follow a cavalry brigade. The regiment was forced to limit its impedimenta to the smallest possible amount. Neither telegraph, pontoon, nor ammunition wagons could be tolerated, possibly not even an ambulance, although ambulances are protected by the Geneva convention.

Therefore the field telegraph was not at the disposal of the regimental commander up to 5 p. m. When at Heiligenthal he decided where to pass the night.

The wagons were with the baggage train at Mohrungen and did not receive his orders until 8 p. m. They could not be expected at Liebstadt before 11 p. m. Should a line then be constructed to Lingnau? Under favorable conditions, it takes about ¾ hour per mile to construct semi-permanent lines; at night it would take longer. The distance is eleven miles. It would be at least 7 or 8 a. m. on May 6th before communication could be established with Lingnau. The regiment would depart not later than 3 a. m. Were it to continue its advance this day as on May 5th, no one would suggest building the telegraph line, unless there were a certainty on May 5th of the direction in which the line-construction would be continued on May 6th, and that there was no possibility of accomplishing the same object by repairing an existing line. The latter contingency would occur, for example, in continuing the march beyond Guttstadt. In this event it would have been better to re-establish the railway telegraph line via Wormditt than to erect a semi-permanent field line.

But on May 5th our regimental commander already could foresee that it would not be a question of continuing the advance on May 6th, the encounter of the two armies being imminent. Therefore it is proper to inquire if it would not be advantageous to erect a semi-permanent line over part of the distance. It is

by no means advisable to construct the line all the way to Lingnau, for, as the regiment cannot tie itself to this, it would be the prey of every hostile patrol.

But west of the Passarge the line would be somewhat protected. It might be constructed as far as Pittehnen with the hope that on the morning of May 6th it might be possible to continue the work. This would be a help to the regimental messenger service on the 6th. But we cannot expect great results from this measure. It would be 3 a. m. May 6th before the line would be ready from Liebstadt to Pittehnen and the distance saved would be only about 4 miles, which could be traversed by a mounted messenger in from 20 to 30 minutes. Neither would this enable us to dispense with the connecting-post at Pittehnen. Communication by wire too easily might be interrupted, the terminal station would require protection from hostile patrols, and telegrams received must be forwarded to the regiment.

In hostile territory it probably would be necessary to repair the Mohrungen–Liebstadt line before there would be any use in building the extension beyond the latter point; and undoubtedly the regimental commander would have begun such repairs during the morning of May 5th. This would have been a gain, and this is really the proper sphere of activity for the cavalry telegraph detachment.

The commander always will endeavor to construct or repair telegraph lines from the rear, so as to make the line continuous. Isolated or detached lines are of no value if they do not connect with the main lines. This also is an argument against carrying along the wheel transportation of field telegraph lines with the fighting part of the cavalry. Had Colonel A—— on the morning of May 5th been prevented from having his baggage train precede the 1st Army Corps and been obliged to have it join that of the 1st Division, he presumably would

have had his telegraph and pontoon wagons go with the combat train as far as Mohrungen.

But it is unlikely that he would have taken them along any farther, on account of the unsettled condition of the situation. He might even have left behind the light ammunition wagons assigned to his regiment. It would have been sufficient if the troopers had taken extra ammunition in their saddle-bags.

As already stated, every (German) cavalry regiment has a patrol equipment in addition to the light field telegraph equipment, and thus each brigade has four patrol equipments and about 9 miles of wire, carried and operated by two telegraph patrols. Only one of these patrols is permanently organized in each (German) cavalry division (of 3 brigades). The remaining ones are formed only in case of necessity, until which time the apparatus is carried on the telegraph wagons. This is a wise provision, as otherwise too many non-commissioned officers would be permanently withdrawn from the ranks. It is of considerable importance whether a cavalry regiment has four non-commissioned officers more or less available for duty at the front. Service with the regiment and fighting the enemy naturally takes precedence over techincal work of auxiliary branches.

The comprehensive task in this instance assigned a single regiment (blue) on one flank of the army, doubtless induced the colonel not to form a telegraph detachment. The men composing it, and loaded with instruments and wire, either marching at the end of the column or behind a troop formed in line, and available neither for attack nor for reconnaissance duty, would have been a constant eyesore to the colonel.

But assuming that a detachment of 8 men had been formed —carrying 5 miles of light wire—of what use would the wire have been?

There would not have been enough wire to establish communication with Kallisten, or even with Sackstein. The proximity of the enemy would have precluded laying a wire to communicate with the troop at Rosengarth, aside from the fact that it also was too distant and that no one could tell how long the troop would remain there. For similar reasons communication could not have been established with Altkirch or Regerteln. It was not worth the labor and risk to lay a wire to any of the detached bodies. At the most it would have shortened the messenger route along one line by about half an hour; the construction of the line might have been observed, and its operation interfered with by any hostile patrol, and would have required the employment of 8 men and 8 horses; and it must be remembered that communication by this means is not absolutely assured, as it depends on the ear. The trouble of recovering the wire next day, and the possible necessity of protecting the party engaged in this work, may interfere with the regular work of the regiment, and increases the misgivings against using it in the foremost line.

The regimental commander might have directed the telegraph detachment for the present to lay the light wire from Liebstadt to Pittehnen, which might have been completed by about 9 p. m., and take it up again after the field telegraph had been completed over this distance—a procedure that would have been dearly paid for by the loss of 4 able non-commissioned officers and 8 horses from the ranks of the regiment.

The German cavalry is but scantily fitted out with cyclists, having but 3 for 600 sabers; but this is as it should be. Although the bicycle is well suited to the delivery of messages and orders on fairly good roads and over level country, and largely saves horses with large bodies of troops, it is not able to follow cavalry across all kinds of country in all kinds of weather. Supposing the 1st Cavalry to have had 6 cyclists, these would have been able to accompany the regiment about as far as Alt

Bolitten on May 5th. It would have been necessary to leave them there temporarily, and the regimental commander, upon deciding to advance via Elditten towards Waltersmühl, would have been unable to give them further instructions. And it is doubtful if the colonel, under the strained conditions when he was expecting to encounter the enemy, would have thought of the cyclists or have been willing to send a trooper back after them. If he chanced to think of them again at Heiligenthal at 5 p. m., he probably would have shrugged his shoulders and left them to their fate. A single experience like this would induce him in the future to leave the cyclists with the baggage train—possibly 2 with the train proper and 4 with the pontoon and telegraph wagons. To unite cyclists with mounted troops would result in a separation as soon as beaten paths are left behind, and then their services would become illusory, while they might be very useful with the train, particularly when late in the day it becomes a question of resuming connection with the troops.

The regimental staff officer sent to corps headquarters at Mohrungen certainly would have sent several cyclists via Liebstadt to Lingnau shortly after 8 p. m., intrusting them with current orders from corps headquarters and everything else worth knowing. They could be at Lingnau by 11 p. m., and the regimental commander's latest reports then could reach corps headquarters, via the Liebstadt telegraph station, by 1 a. m. Were there no telegraphic communication between Liebstadt and Mohrungen, the returning cyclist still could arrive at Mohrungen by 3 or 4 a. m., and the time might be reduced by using the remaining cyclists as relays.

The improvements of science apparently have made a useful means of the bicycle for messenger work of an army, including cavalry, if cyclists are not precipitately and prematurely taken into a region where they cannot follow the cavalry and thus lose touch with it. The bicycle is useless in unfavorable

weather, over bad roads, or in a mountainous district. It ceases to be a rapid means of communication and leaves a burden.

Far more useful than the bicycle, propelled by the feeble strength of man, is the automobile, whose construction has reached a high degree of perfection in recent years. The automobile is but slightly affected by wind and weather, and over passably hard ground it can climb grades that would be prohibitive to a cyclist. In places where the latter would have to carry or push his wheel, the automobile is still able to proceed at a rapid rate.

If word is received at Mohrungen by 8 p. m. that the 1st Cavalry has reached Lingnau, an officer from corps headquarters could reach the latter place shortly after 9 p. m. on an automobile, to consult with the colonel and bring him orders. And, if necessary, the same machine could pass over the road once or twice more during the night. The rapidity and safety of this means of communication during field operations is equalled by neither wireless telegraphy nor visual signals. Only where mountains, wide rivers, or inlets of the sea separate bodies of troops, will it be occasionally possible to obtain better results with wireless telegraphy or visual signalling.

Of course this presupposes that there is no lack of gasoline, which is the best fuel, and of which about $\frac{1}{10}$ gallon will be required per mile on ordinary roads. Therefore there should be no trouble in carrying along a sufficient quantity.

The motor-cycle is still more convenient and movable than the automobile; almost being equal to the latter in speed and more readily overcoming terrain difficulties. A skilled rider can get along on a foot-path and the lightness of the machine (weighing only about 120 pounds) enables the rider to carry it over marshy or otherwise unfavorable ground.*

*They carry from 1 to 1¼ gallons gasoline, on which they can make from 100 to 125 miles.—*Translator.*

The time thus lost can be regained by increased speed over better parts of the road.

While it might have been impossible for a heavy four-wheeled automobile to follow the cavalry everywhere, there is no doubt but what motor-cycles could have followed.

If the cavalry had been equipped with several such machines, it would have been able to communicate several times with corps headquarters during May 5th. At corps headquarters they would have understood the situation on the Alle by 6 p. m.

Of course automobiles and motor-cycles are exposed to the attacks of hostile patrols; but no more so than a mounted messenger. On the contrary, their great speed decreases the chance of hostile marksmen hitting them, and the enemy will hardly oppose them with cold steel.

In the future the automobile and motor-cycle must form the basis for communication between army headquarters and the advance cavalry. In all probability they will make the cavalry telegraph unnecessary and will effect an appreciable saving in men and horses to the cavalry. Detached bodies and reconnaissance troops will be more easily and rapidly kept in communication with the cavalry commander by means of motor cycles than in any other way. On level roads, under certain conditions, they even may undertake independent tours of exploration. It is quite possible that two motor-cyclists sent out from Heiligenthal at 5 p. m. might have reported in Lingnau by 7 or 8 p. m. whether or not Liewenberg was occupied by the enemy, and what is known of him in that vicinity. Then news of this might reach Mohrungen by 9 p. m. In such an undertaking the only question is whether or not the game is worth the candle.

While in Part I. I was obliged to call attention to the extraordinary difficulties that strategical patrols would encounter in forwarding their messages, I must not omit now to point out

that unexpectedly their value would be greatly enhanced if it were possible to assign several motor-cycles to each one of them. In closely settled countries, where, by making slight detours, it is possible to travel great distances on paved highways, it is possible to travel from 175 to 250 miles in a day on a motor-cycle. With their assistance a patrol reconnoitering the flank of a hostile army might be able to give the commander-in-chief an insight into the situation that never could have been possible with mounted messengers alone. If by force of circumstances the motor-cycles become separated from a patrol, the latter will be in no worse state than heretofore. But the speed of these cycles in many cases might enable the cyclists to rejoin their patrols by a roundabout way, thus getting out of reach of hostile fire-arms if their own will not open the way.

THE ARMY CORPS ON THE MARCH.

Arrangements for the March.

Although the reader from now on will accompany the 1st Army Corps during its march of May 5th, still his thoughts will not altogether forsake the 1st Cavalry, which has had his attention so far. It is rather to be hoped that the services rendered the corps by the cavalry will appear in their correct light; and the reader will have an opportunity of viewing the measures taken by the cavalry leaders from a different standpoint.

On May 4th the 1st Army Corps was halted in such a way, near the line of march, that the 1st Division occupied the space between Drenken and Saalfeld, while the last troops of the 2d Division were quartered in Gerswalde. For purposes of instruction we shall not make the conditions too favorable under which the march is to be continued on May 5th, and for this reason shall change the situation as given in Part I. by assuming that the organized militia is not along the railway from Maldeuten through Pr. Holland to Mühlhausen, but has been withdrawn to the line Riesenburg–Christburg–Elbing. The army corps is marching on one road. In this region full of lakes and devoid of roads it is impracticable to form several columns for the march to Mohrungen. The van guard of the 1st Division is ordered to leave Barten at 6 a. m. The baggage trains of corps headquarters and of the 1st Division immediately follow the 1st Division; then comes the 2d Division.

The 1st Division is ordered to arrange for the protection of the left flank of the column until the 2d Division can assume this duty. The two division commanders are to arrange the details.

Before the commander of the 1st Division was able to issue his orders, the corps commander ordered that Major D——, with Troops A, B, and E, 3d Cavalry, be under his immediate orders and should leave Drenken on reconnaissance via Pfeilings towards Münsterberg–Jonkendorf. The corps commander also gave notice that the 1st Cavalry would advance via Gr. Hermenau.

The 1st Division* is in cantonment as follows on May 4th:

Headquarters, 1st Division.....Saalfeld.
Headquarters, 1st Brigade.....Gr. Arnsdorf.
1st Infantry, 2d Infantry, 3d Infantry, } Gr. Arnsdorf, Figaiken, Drenken; Plöszen, Barten, Posorten; Terpen, Gergehnen.
Headquarters, 2d Brigade.....Bündtken.
4th Infantry, 5th Infantry, 6th Infantry, } Ankern, Lopittken; Sadlauken, Bündtken; Kuppen, Saalfeld.
Troops A and B, 3d Cavalry.....
.....Gr. Arnsdorf, Figaiken, Drenken, Plöszen, and Posorten.

The following men of Troop C are permanently detailed as mounted messengers:†

At Division Headquarters	8 men.
2 Brigade Headquarters	8 men.
6 Regimental Headquarters	12 men.
Baggage Train	12 men.
	40 men

The remainder of Troop C is at Lopittken and Ankern.

Headquarters, 1st Brigade Field Artillery.....Saalfeld.
1st Field Artillery.....Barten, Woritten, Bündtken, Kuppen.
3d Field Artillery, whose 2d battalion is composed of heavy howitzers.....Saalfeld.
1st Battalion Engineers.....Woritten.
Co. A Signal Corps, 3 Field Hospitals, Division Bridge Train, } .....Saalfeld.

*To adhere more nearly to the number of troops of the text, it is assumed that the 3d Brigade of the 1st Division, 2 squadrons of cavalry, and a field hospital are detached; the 2d Division having its 3 brigades present.—*Translator.*

†These probably would be taken from the mounted orderlies assigned to infantry regiments under par. 25, F. S. R.

The baggage train is with the regiments; the ammunition column is parked in rear of the division.

Food and forage have been replenished from the supply column that arrived May 4th at Saalfeld.

The officers detailed to receive orders have assembled at division headquarters.

WHAT ORDERS DOES THE COMMANDING GENERAL OF THE FIRST DIVISION ISSUE ON THE EVENING OF MAY 4TH?*

The ability continually to keep in mind the entire situation plays an important part in the successful conduct of the art of war. Thus the commanding general of the 1st Division should mentally view the picture that the entire 1st Army Corps will present on the road to-morrow.† I am the more willing to sketch the outlines of this picture because the greater part of the realities of war and the retardation due to long columns of troops as well as trains is not seen or felt in time of peace. When the head of the 1st Division reaches Gr. Bestendorf, the tail of this column of troops would be near Woritten. The divisional trains, possibly including cattle on the hoof, would extend back to near Saalfeld. In rear of this would come the 2d Division and its trains extending back nearly to Finkenstein, followed by a battalion of heavy artillery if one be with the corps. If the baggage trains had not been with their respective commands on May 4th, but had been in rear of the troops of the entire army corps, they would on May 5th begin their march from Weinsdorf when the head of the corps had reached Mohrungen, its destination for the day. Thus these

*The reader must not be worried because only the general map is available to show the country in the vicinity of Saalfeld; this often would happen in time of war.

†No effort was made to figure road-spaces from our own Field Service Regulations, because it was thought those given by the author would answer the purpose, even with the substitution of our own Army organizations, as the total number of troops considered is about the same as in the author's example.—*Translator.*

trains would be about 18 miles in rear and could not reach the leading troops for 6 hours with rations and baggage. As a rule, it would take even longer than this, as the march usually suffers from delays, and any halt of the troops checks all the trains.

In rear of the trains of the 2d Division would follow additional reserves of ammunition, stores, equipment, and food supplies of the army corps. Such an immense train could not march in an unbroken column, but would be subdivided into smaller trains or groups; and communication with magazines in rear of the army interferes with the movement of these groups. Thus great gaps between them are unavoidable. If it is assumed that the army corps has advanced via Marienwerder and Riesenburg, on May 4th its trains will still cover the road as far as Marienwerder. On May 5th the last loaded columns may reach Riesenburg, while empty wagons on this and subsequent days will be loading new supplies at Marienwerder or Riesenburg with the object of carrying them after the corps.*

The commanding general of the 1st Division does not need to figure out road-spaces; the living reality is before him. He does not need a pair of dividers to determine the end of his long-drawn-out command, which is forcibly brought to mind in his orders and in his anxiety to replenish supplies.

He therefore fully understands the need of the corps commander's order to protect the left flank. In fact, the order was superfluous, for he would have attended to the protection of the flank of his own accord. It is fortunate that the army corps' line of communications lies so far to the south. It would be more difficult to protect if it extended through Christburg to Marienburg.

It is known that the 1st Cavalry is reconnoitering towards the front and the left flank, and the distance of the hostile col-

*The length of an army corps, with all its auxiliary troops and trains, is 35 miles. (See par. 233, F. S. R.)—*Translator.*

umns on May 5th makes an encounter with large hostile bodies unlikely on this day, but we must be prepared for the appearance of hostile cavalry. It has already been learned at corps and division headquarters that telegraphic communication with Brückendorf, Guttstadt, and Wormditt was interrupted this evening (page 10); but we cannot tell whether the 1st Cavalry will be able to drive back the hostile advance parties or whether it will not be forced to give way before superior numbers of hostile cavalry. The latter would not be able long to delay the advance of the army corps and would hardly be able to cover the distance quickly enough to threaten the flank of the 1st Division as early as the forenoon of May 5th. But its patrols might appear on the Overland Canal (Oberländische Kanal) early in the morning, and should they discover the army corps *en route*, they would make the utmost effort to send this information back. Matters might shape themselves very differently with the cavalry than I have pictured. Strong bodies of hostile cavalry might reach the Passarge early on May 5th and forward by automobile the news received by messenger arriving on exhausted steed. In this way the hostile commander-in-chief might obtain it the same afternoon or evening.

The reader will remember the hostile patrol sent out via Heilsberg and Wormditt, (pages 157–9), which, on the supposition that the Maldeuten–Pr. Holland railway is not guarded, might reach Gr. Arnsdorf by 10 a. m., May 5th. We saw that under existing circumstances its report would arrive at headquarters too late. But it would be very different if the hostile cavalry gains the upper hand on the Passarge. Therefore the commanding general of the 1st Army Corps has every reason to protect himself against hostile patrols. He knows only too well what it would mean for him if on the evening of May 5th he received a message making it certain that on the morning of this day a long column marched from Seeburg or Wartenburg

towards Guttstadt or possibly from Seeburg towards Allenstein.

In discussing the information a hostile patrol might obtain south of the Overland Canal concerning the march of the 1st Army Corps (see page 159), I pointed out that this presupposed criminal carelessness on the part of the blue forces. We see that the commander-in-chief at Saalfeld is not laying himself open to such a charge. The commanding general himself orders the protection of the flank and thereby shows what value he places on the arrangement, although there can be no real danger in this quarter on May 5th.

I wonder if all my readers considered it necessary to include a provision for a flank guard for the district west of the overland canal in their draft of field orders of the 1st Division the evening of May 4th; and whether they would have done so without the hint contained in Part I.?

The omission could easily be explained.

In the endeavor to place field service on a firm foundation, and to offer practical rules even to the inexperienced, our regulations have revived a number of customs concerning subdivision of columns and protection on the march that had yellowed with age and had been abandoned. Large bodies of independent cavalry escaped similar regulations because they were unknown before the last great epoch of war and in whose case therefore reference could not be had to cherished memories and recollections. The Field Service Regulations dispose of this subject with one short sentence, although the cavalry in advance of an army is exposed to far greater dangers than the infantry: "Independent cavalry chooses its formation and the means for security and information according to the nature of the task in hand."*

In Part I. I praised this scantiness as a piece of good fortune because it developed ingenuity and deliberation, while the stately array of paragraphs devised for the guidance of com-

*See par. 68, F. S. R.

manders of infantry and of the combined arms hamper independent action and give rise to the error that everything will be all right if the letter of the regulations has been fulfilled. Notwithstanding the most detailed instructions concerning the service of security and information—as can be seen by examining the paragraphs on this subject—there is hardly a reference to the necessity for preventing hostile reconnaissance. The deficiency is strangely contrasted by the emphasis that is laid on reconnoitering the enemy, and the value that higher commanders place on early and reliable information about the enemy. The enemy will be equally anxious to obtain reliable information about our movements.

Our cavalry leaders, our mounted patrols, naturally will be forced to fight with bodies of hostile cavalry of various sizes. They will but seldom be able to carry out their reconnaissance or send back messages without fighting. In acting thus they will at the same time be warding off hostile reconnaissance. But the careful instructions with which our regulations fence in and guide the action of our troop leaders where arrangements for marching and the service of security are concerned, together with the baleful experience in our peace maneuvers, where hostile scouts are visible everywhere along the edge of woods and top of hills (within reach of our fire-arms), counting every gun and flag, creates the impression that this must be so. Otherwise, would not the regulations insist that such patrols must be kept at a distance, and call attention to the dangers arising from this unchecked activity?

Therefore, in the present case (it not being a flank march), who would blame the commander of the 1st Division if he did not lay too much stress on the corps commander's orders to protect the left flank, and contented himself with inadequate measures, rather indicating his willingness to comply with orders than an appreciation of the importance of the subject?

After this cogitation there will no longer be any doubt that

a flank guard will already be needed west of the Overland Canal —the best place probably being along the Miswalde–Maldeuten railway. The line of railway easily can be watched, and if hostile patrols find infantry there, this would look more like a railway guard than an effort to protect the flank of a marching column. The division commander will not assign this duty to the advance guard. The commander of the advance guard could not superintend the duty and would have to send back the necessary troops. Therefore I shall assume that two battalions of the 4th Infantry, as left flank guard under the immediate orders of the division commander, receive orders to occupy the railway from Miswalde to Rüppertswalde to prevent hostile cavalry from obtaining information of the march of the Army Corps. The two battalions will remain there until further orders. The division commander will make arrangements with the commander of the 2d Division concerning the relief of the two battalions. And an effort will be made to get together a railway train which will be able to carry these battalions to Mohrungen in the afternoon. It is likely that at least 8 troopers must be attached to these two battalions notwithstanding the fact that there is but little divisional cavalry available on May 5th. The flank guard must make use of the cyclists belonging to the battalions* and the railway telegraph for sending messages.

The division commander would best assign to the advance guard commander the duty of protecting the flanks east of the Overland Canal. At the beginning of the march this region is situated ahead of the point. An independent flank guard would not be able to fully co-operate with the advance guard. It would require the continued attention of the division commander who thus in a way would assume general control of the advance guard. Though naturally this division commander has the right to request that the protection of the flank east-

*The Germans have two cyclists in each infantry battalion.

ward of the Overland Canal, incident to the forward movement of the advance guard, be continued until further orders. Accordingly, when the advance party reaches the vicinity of Mohrungen, the flank guard will resemble a thin outpost line extending from Miswalde via Ober-Samrodt, Steinsdorf, and Rollnau to Neuhof.

Of course this is contrary to the method frequently adopted in time of peace of having the flank guard on a parallel road keep up with the reserve of the advance guard or with the head of the main body. But it is evident at a glance that in the latter way only a very imperfect protection can be assured.

Even if an enterprising hostile patrol commander should discover the gradual advance of troops via Samrodt and Steinsdorf, this would not afford him or his superior, receiving the report, a safe basis for assuming that the army corps was advancing. Of course the information that on May 5th blue infantry was discovered at the bridge of Rüppertswalde or at Steinsdorf would be of importance to the hostile general. This, with additional information, for example, that in the afternoon fire had been received from blue infantry at Pfeilings or Himmelforth, and the action of the cavalry, might produce a fairly correct impression at hostile headquarters of the true situation. A knowledge of this creates a desire to do more in the blue army to keep the enemy in ignorance. Patrols are more easily deceived in time of war, where deadly bullets demand that a respectful distance be maintained, than in time of peace. They very seldom correctly estimate the enemy's strength; often battalions and regiments are reported, where there actually are but small detachments. If it is important to oppose the enemy's efforts to locate our flank—and this is always desirable—small bodies of infantry can assist in this by marching some distance from the flank and parallel with it. In the present case, the advance of the organized militia early on May 5th from Christburg-Elbing towards Pr. Holland might

help mislead hostile reconnoitering cavalry. The same end could be attained by one or two battalions of infantry with a platoon of cavalry on May 4th and 5th marching from Christburg towards Liebstadt with companies divided among the main roads. It would insure greater protection to the flank of the army and form a welcome support for the cavalry in front. It would not be necessary to have the detachment absent in the coming battle.

Of course any action causing a detachment to depart so far from the line of march would have to be ordered from army or corps headquarters, though a masterly division commander need not hesitate to assume the responsibility.

The discussion of the protection of the left flank has dealt with and disposed of the part of the division commander's task that would have been out of the ordinary routine.

My readers' orders will differ somewhat concerning the flank guard, but I think it very likely that otherwise they will be very much alike, because the Field Service Regulations give such plain instructions.

The following draft is offered as an example and a basis for discussion:

Headquarters, 1st Division, 1st Army Corps,
SAALFELD, 4 May '04, —— p. m.

FIELD ORDERS,
No. ——.

Troops.

(*a*) Advance Guard:
Comdg. Gen. 1st Brig.
1st Inf.
2d Inf.
Tr. C, 3d Cav.
1st Bn. 1st F. E.
Co. A, Engrs.
1st F. Hosp.

1. (Information of the enemy.)
The 1st Corps will continue its march to-morrow on the highway towards MOHRUNGEN.
The 2d Corps to our right is marching via LIEBEMUHL; the heads of its columns are to reach LOCKEN to-morrow.
The 1st Cavalry will leave MALDEUTEN at 5 a. m. to-morrow, going via MOHRUNGEN and GR. HERMENAU. It will reconnoiter to our front and left flank.

(*b*) Main Body (in order of march):
3d Inf.
2d Bn. 1st F. A.
Hq. & 1st Bn. 4th Inf.
3d F. A.
5th Inf.
6th Inf.
1st Bn. Engrs. (less 1 Co.)
2d F. Hosp.
3d F. Hosp.
Amn. Col.
Div. Br. Train.

(*c*) Left Flank Guard.
Lieut.-Col. N——.
2d & 3d Bns. 4th Inf.
8 men Tr. C, 3d Cav.

Major D——, with Troops A. B. and E, 3d Cavalry, will leave DRENKEN at 5 a. m. to-morrow, and will reconnoiter via PFEILINGS towards MUNSTERBERG–JONKENDORF. He is under the direct orders of the corps commander.

2. This division will march at the head of the corps

3. (*a*) The van guard will leave DRENKEN at 6 a. m. to-morrow.

(*b*) The main body of the division will follow the advance guard at 1,000 yards. The troops off the highway will join the column at SEEGERTSWALDE, avoiding detours.

(*c*) [Orders for the protection of the flank by the 2d and 3d Battalions, 4th Infantry, west of the Overland Canal.]

4. The baggage trains, with that of corps headquarters in the lead, will join the troops on the SAALFELD–MOHRUNGEN highway, following immediately in rear of the divisional bridge train.

5. I shall be with the advance guard.

By command of Maj.-Gen. U——:
C—— R——,
Chief of Staff

There will not be much trouble composing such an order. It was written off-hand by following regulations and did not take as long as many of the messages from patrols in these pages. With the exception of the flank guard, the situation of the division is so normal that it would require some termerity to deviate from any one of the printed rules in composing the order. These rules are so specific that a candidate for a commission from a military academy can be expected to compose a flawless order for a division. Let us see if the lessening of mental effort and the uniformity of arrangement are of practical value and what purpose the convenient marginal reference serves.

In the first place, the manner of issuing orders calls for some remarks.

Whoever has dictated an order or taken one from dictation has encountered the strange provision requiring the distribution of troops to be written in the margin. There is no space in the adjutant's memorandum-book for marginal writing; the distribution of troops must be written on some blank page and later it may be difficult to tell to what order it belongs. It is a form suited for printing and for the office desk, but not for dictation. It would be better to include the distribution of troops with other matter in the body of the order.

Let us for a moment put ourselves in the place of the adjutant-general, 1st Brigade, who has just written out the foregoing order. It is after 11 p. m. The order contains important instructions for his superior and assigns cavalry, artillery, engineers, and a field hospital to his command, at the same time taking away one of his regiments of infantry. (We are assuming that a different assignment of troops existed for May 4th.) At division headquarters the location of each troop and battery presumably was not known, as the villages surely were assigned to larger units (brigades and regiments) and presumably the officers assembled to receive orders could not give complete information on the subject. For at division headquarters there surely were only assembled the adjutants-general of the infantry and artillery brigades, the squadron adjutant, an engineer officer, and an officer from the field hospitals. It is unlikely that the adjutant-general of the artillery will be able to say definitely where the different battalion headquarters and the individual batteries are located.

But the commanding general of the 1st Brigade, who has been detailed as advance guard commander, must assemble the officers at Gr. Arnsdorf to receive orders for the troops placed under his command, and it is the duty of his adjutant-general to order them there, or, if practicable, bring them with him. The squadron adjutant is going back anyway and it may be possible to take the engineer officer along too. But he

must look up the adjutant of the 1st Battalion, 1st Field Artillery. The latter may be at his regimental headquarters at Kuppen, receiving orders. It is over 3½ miles to Arnsdorf. It will be past midnight when the officers arrive there for orders. The brigade commander, who has been awakened, will require some time to think about his instructions, and it will be at least 1 a. m. before the advance-guard order is dictated. It then goes to the next lower commanders. They also will require time for reflection, and it will be 3 a. m. before the troops, the companies, and batteries at Plöszen, Bündtken, Barten, and Saalfeld know what they are to do in the morning.

The 1st Field Hospital must leave at 5 a. m. The adjutant-general can save an officer of the field hospital a trip to Arnsdorf to receive orders if he, in anticipation of his brigade commander's approval, tells said officer that the field hospital should arrive at Barten at 6 a. m. He also might send a similar order to the 1st Battalion, 1st Field Artillery. The brigade commander would still be able to assign the battalion to its proper place in the column in the morning. There are no difficulties involved in the arrangements for the infantry and cavalry, quartered as they are in the neighboring villages of Lopittken and Ankern. But the problem is not always so easily disposed of; the adjutant-general, or officer representing him, would not always feel authorized to anticipate the commander's intentions. The division commander sometimes can obviate such amplifications by announcing a place of assembly for the troops assigned to the advance guard, leaving its commander simply to issue the orders for security and information.

But the obstacle here touched upon would seldom be encountered during a campaign. It is not advisable frequently to change the command and composition of the advance guard; the interests of the service would suffer thereby. As a rule, the assignment of troops holds for an indefinite period, and only the adjutant or aide of the advance guard commander would report

for orders at division headquarters, and these would then be issued from the advance-guard commander's quarters to the troops under his command. Experience in the field has shown the wisdom of having the same troops permanently detailed for advance-guard duty, and no experienced commander will change this custom without necessity. The provision of the Field Service Regulation specifying that the strength and composition of the advance guard will depend on "the object of the march, the nature of the country, and the strength of the force it is covering,"* must be interpreted in a general way. The nature of the theater of war, the force of cavalry ahead of the army and its situation with reference to the enemy, the character of the enemy, and the intentions of the commander-in chief are to be taken into consideration, and not minor details of daily occurrence.

The attending results will be the best criterion of the scope and utility of the arrangements made by the foregoing order from division headquarters. Let us assume that measures taken by the commander and the adjutant-general of the 1st Brigade have assured the timely assembly at Barten and Drenken of the troops belonging to the advance guard. There the commander of the advance guard will issue his orders for the march. At 5.30 a. m., May 5th, he arrives at the highway north of Drenken, where the troops are already assembling. Soon after, the division commander also arrives and gives the advance-guard commander the following additional instructions:

"The 2d and 3d Battalions 4th Infantry have occupied the railway from Miswalde to Rüppertswalde as a protection against hostile cavalry, and will remain there until relieved by the 2d Division. They probably will be sent to Mohrungen by rail this afternoon.

"The advance guard will protect the left flank east of the Overland Canal. Measures will be taken to protect not only

*See par. 96, F. S. R.

the main body of the division against hostile reconnaissance, but also the remainder of the corps."

In addition the division commander tells the general of the information received during the night at corps headquarters (pages 10, 23 and 93). The gist of this is that hostile detachments reached Wormditt, Guttstadt, and Brückendorf yesterday evening; but that early this morning telegraphic communication still existed with Liebstadt and Horn. The division commander then goes to Barten, where the corps commander wishes to see him.

The commanders of separate organizations are assembled at Drenken.

WHAT INSTRUCTIONS DOES THE COMMANDING GENERAL OF THE FIRST BRIGADE (advance-guard commander) ISSUE AT 5.40 A. M.?

The order of march of the advance guard depends on the arrangements made for the protection of the flank. The available cavalry cannot be used for this purpose. It is evident that infantry must be used. Were it simply a question of protecting the flank of the advance guard alone, small flanking detachments would suffice, marching on a line with the reserve. Or small detachments (platoons, for instance) might be sent out from the van guard on roads branching off from the line of march, which, halting at suitable points, could join the reserve on receiving orders to do so. The first scheme is seldom practicable, and here not at all, because protection is ordered for the entire length of the marching army corps. But there are also objections to the second plan. It would be difficult to make arrangements assuring the co-operation of such small detachments even during the march of the advance guard to Mohrungen; later the advance guard commander would lose track of them altogether.

The protection of the flank to the north must be turned

over to a single body of troops whose commander will be responsible for the details. The distance under consideration—from the Overland Canal to the Mohrungen–Pr. Holland highway—is $7\frac{1}{2}$ miles, so the advance-guard commander considers two battalions necessary.

A flank guard is also necessary south of the line of march, because we know that hostile parties arrived at Brückendorf yesterday and could appear early to-day at Gottswalde and Venedien. The line of march of the 2d Army Corps is too distant to justify our omitting the protection of the right flank. But the general thinks that for the present two companies will be sufficient, which, marching from Gr. Wilmsdorf via Venedien to Kl. Gottswalde, will be able to keep hostile patrols at a distance. But he admits to himself that the remainder of the battalion may have to be sent as a reinforcement, possibly marching from Gr. Bestendorf via Wolla and Kuhdiebs to Paradies.

He intends assigning two battalions to the van guard notwithstanding the ample flank guards. There is quite a broad extent of territory to the front that may call for various detachments, particularly as the cavalry is reduced in numbers, and, after reaching Mohrungen there presumably will be considerable for the vanguard to do.

In view of these considerations he orders as follows:*

ADVANCE GUARD ORDERS. DRENKEN, 5 May 04, 5-40 a. m.

1. (Information of the enemy).
2. Distribution of troops:
   Advance-guard cavalry: Troop C, 3d Cav.
   Van guard: Lieutenant-Colonel J——.
   1st and 2d Bns. 1st Inf.
   1 n. c. o. and 10 troopers.
   Co. A, Engrs.
   Reserve (in order of march):
   Col. 1st Inf.
   3d Bn. 1st Inf.
   1st Bn. 1st F. A.
   Cos. A and B, 2d Inf.
   1st F. Hosp.
   Left Flank Guard: Colonel K——.
   2d and 3d Bns. 2d Inf.
   8 troopers.
   Right Flank Guard: Major M——.
   Cos. C. and D., 2d Inf.
   4 troopers.
3. The advance-guard cavalry will depart at once, provisionally advancing as far as the edge of the woods between Gr. Bestendorf and Mohrungen, and reconnoitering via Mohrungen towards Locken, Brückendorf, and Liebstadt, and will establish communication with the 1st Cavalry, which is advancing via Gr. Hermenau, and with Major D——, advancing via Pfeilings towards Münchenberg–Jonkendorf.
4. The van guard will depart at 6 a. m. via Maldeuten towards Mohrungen. The reserve will follow at a distance of 1,000 yards.

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*The order is given in the body of the text in the form presented by the author. It has the "distribution of troops" embodied as par. 2, in accordance with his views.

The order is herewith given in the form prescribed by our instructions, "Field Orders," by Major E. Swift:

Advance Guard, 1st Division, 1st Army Corps,
FIELD ORDERS, No. ——. DRENKEN, 5 May 04, 5-40 a. m.

Troops.

(*a*) Advance Cavalry:
Captain C——.
Tr C, 3d Cav.

1. (Information of the enemy.)
Our army corps will continue its march towards MOHRUNGEN to-day. The 2d Corps will march on our right via LIEBEMUHL; the head of its columns are expected to reach LOCKEN.
The 1st Cavalry and Major D—— with 3 troops 3d Cavalry are in our front.

5. The left flank guard, to protect the march of the army corps against hostile cavalry, will take position along the line of Freywalde–Steinshof–Rollnau and to the Mohrungen–Pr. Holland highway south of Wiese. Colonel K—— will receive special instructions from me. The left flank guard will leave via Maldeuten in advance of the van guard.
6. The right flank guard at first will march via Gr. Wilmsdorf and Venedien to Kl. Gottswalde. It will leave immediately after the left flank guard. Major M—— at once will report to me for orders.
7. The baggage train will join the corps headquarters train immediately after the division has marched past; the highway will be kept clear of teams until then.
8. I shall be with the van guard.

The order is copied by the adjutants.

The form of this order also strictly conforms to the provisions of the Field Service Regulations. There are no unusual conditions, any more than with the order from division head-

(*b*) Vanguard:
Lieut.-Col. J——.
1st & 2d Bns. 1st Inf.
1 n. c. o. & 10 men Tr. C.
Co. A, 1st Bn. Engrs.

(*c*) Reserve (in order of march):
Col. 1st Inf. & Staff.
3d Bn. 1st Inf.
1st Bn. 1st F. A.
Cos. A & B, 2d Inf.
1st F. Hosp.

(*d*) Left Flank Guard:
Col. K—— and Staff.
2d & 3d Bns., 2d Inf.
8 men Tr. C.

(*e*) Right Flank Guard:
Major M——.
Cos. C & D, 2d Inf.
4 men Tr. C.

The advance guard will march along
2. the highway via MALDEUTEN towards MOHRUNGEN.

3. (*a*) The advance cavalry will depart at once, provisionally advancing as far as the edge of the woods between GR. BESTENDORF and MOHRUNGEN and reconnoitering via MOHRUNGEN towards LOCKEN, BRUCKENDORF, and LIEBSTADT, and will establish communication with the 1st Cavalry, which is advancing via GR. HERMENAU, and with Major D——, who is advancing via PFEILINGS towards MUNCHENBERG–JONKENDORF.
(*b*) The van guard will depart at 6 a. m.
(*c*) The reserve will follow at 1,000 yards.
(*d*) The left flank guard, to protect the march of the army corps against hostile cavalry, will take position along the line of FREYWALDE–STEINSHOF–ROLLNAU and to the MOHRUNGEN–PR. HOLLAND highway south of Wiese. Colonel K—— will receive special instruc-

quarters. On the contrary, the protection of the flanks is always the duty of the advance guard and does not form an exception to the rule.

And yet I am inclined to believe that the work of some of my readers will be quite different.

Those that considered it necessary, as I have, to send two battalions as flank guard to the north and at least two companies for similar purposes to the south, surely will have some misgivings concerning the weakness of the reserve in infantry. If two more companies should be sent from Gr. Bestendorf via Kuhdiebs, the reserve would consist of only a battalion of infantry in addition to the artillery (and field hospital). The matter might be remedied by having but one of the battalions of infantry in the van guard and the other in the reserve, or at least have the company of engineers with the reserve. But the farther forward the engineers are the more promptly can necessary repairs be made to the road, and it is not considered advisable to have less infantry in the van

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tions from the advance-guard commander.

The left flank guard will leave via MALDEUTEN in advance of the van guard.

(*e*) The right flank guard at first will march via GR. WILMSDORF and VENEDIEN to KL. GOTTSWALDE. It will leave immediately after the left flank guard.

Major M—— at once will report to the advance-guard commander for orders.

4. The baggage train will join the corps headquarters train immediately after the division has marched past; the highway will be kept clear of teams until then.

5. The advance-guard commander will be with the vanguard.

By command of Brig-Gen. A——:

B—— C——,
Adjt.-Gen.

Copied by the adjutants of separate organizations.

guard. As soon as the extensive territory in front of the line of march is insufficiently controlled by the reduced van guard, or as soon as the column approaches Mohrungen, the van guard would have to be reinforced, which would result in loss of time. It is impossible to economize in the strength of the flank guards. Be it satisfactory or not, we have to content ourselves with the proposed arrangement. Were we to have but two companies in the van guard, one subdivision would have to be omitted in the formation* and the reserve to a certain measure would assume the rôle of support. This simply would change the form, and not the substance.

We encounter a difficulty, notwithstanding the simple situation, which makes us doubt the completeness of the division order; the question may arise, whether the addition of artillery to the advance guard was not the cause of the trouble. The advance-guard commander would be less hampered in his arrangements if he had no artillery. For he must have at least a battalion of infantry with the artillery; and this assignment of artillery is the very thing left to the discretion of higher authority. But if we remember that the advance guard might encounter hostile cavalry and horse artillery in the vicinity of Mohrungen, we shall not question the suitability of the arrangement. This is just what might have happened and it would have been undesirable to have had the march of the army corps interrupted by the necessity of bringing forward artillery from the main body of the division. But without artillery support the infantry of the advance guard might have suffered serious and unnecessary losses in advancing against the hostile artillery. It is for just such a case that artillery is very desirable with the advance guard. It can be more readily spared in advancing to battle because it is preferable not to bring the artillery battalions into action successively. We must also

*Presumably referring to the necessary omission of an intermediate body between advance party and support, as authorized for large van guards by the German Field Service Regulations.—*Translator.*

remember that the distribution of troops is not changed daily, and that the advance guard will perform its duties better the more lasting the assignment of troops is and the more the commanders and troops get acquainted with each other. Besides, the necessity of providing quarters and supplies argues in favor of mingling the different arms of the service. If there is no artillery with the advance guard, there may be vacant stables and barns and surplus oats with it, whereas there may be a scarcity of these for the artillery with the main body.

There is another point in the general's arrangements that attracts our attention. He has formed advance-guard cavalry of his remaining cavalry. This is in accord with the regulations which state than an advance guard will be divided into reserve, van guard, and advance-guard cavalry.* Although the greater part of the divisional cavalry is not with the advance guard, the regulations do not admit of any different arrangement.† The inspector whose duty in time of peace it might be to pass upon the arrangements would have to take exception if the advance-guard commander had assigned the remainder of his cavalry to the van guard. In time of war he (the inspector) probably would have overlooked it, being convinced that the arrangement was judicious. It is only advisable to form the remaining cavalry into an independent group if it is not kept with the van guard, but sent ahead. The advance-guard commander realized this and ordered it for the present to go as far as the edge of the woods east of Gr. Bestendorf. But he thereby increases the difficulties of communication with the flank guards while he is marching through the woods and deprives himself of the ability to send out patrols for hasty reconnaissance or for the capture of hostile troopers. The 1st Cavalry and Major

*In our Regulations the advance-guard cavalry is grouped with the van guard. (See par. 100, F. S. R.) But in the model for orders for an advance guard this cavalry, called advanced cavalry, is grouped separately. (See page 39, Swift's "Field Orders," etc.)—*Translator.*

†But see par. 102, F. S. R.

D—— are on the way towards Mohrungen and the region beyond. Therefore a few sharp eyes will suffice at Mohrungen. The remainder of the troop is not needed there, but with the infantry protecting the flanks, where the assistance of the horses' speed would be greatly missed.

The advance-guard commander's order adheres closely —all too closely— to the printed instructions. Further obeying the regulations, he has ordered the advance-guard cavalry to restore communication with the 1st Cavalry and Major D——.* If the division or corps commander should inquire how matters stood with the foremost cavalry, the advance-guard commander would be safe; he has given the necessary orders to his cavalry. It would not be his fault if insufficient information were received or if it came too late.

Would it be the fault of the advance-guard cavalry?

We shall look for the answer by asking:

WHAT ARRANGEMENTS ARE MADE BY THE COMMANDER OF THE ADVANCE-GUARD CAVALRY TO RESUME AND RETAIN COMMUNICATION WITH THE DETACHED CAVALRY?

It is not a question of a short forenoon of a maneuver day, but of a long day and the night following, and possibly beyond that. Every message will take 1 or 2 men, none of whom will again be sent to the front. For, if communication is to be reliable, it must be carried back to the higher commanders; and the messages have long distances to travel. At least 15 to 20 men should be sent in each direction† and an officer should be in command. A non-commissioned officer cannot be expected to have the *coup d'œil* and military judgment necessary for the duty.

If these connecting bodies should succeed in overtaking the 1st Cavalry and Major D—— what would be accomplished

*The van guard furnishes "patrols to communicate with independent cavalry, etc." (See par. 100, F. S. R.)—*Translator.*

†That is, after the 1st Cavalry and Major D——.—*Translator.*

thereby? It would be very difficult for the colonel and the major to give the officers of Troop C complete and lasting insight into the situation, and their plans, and without this the reports of these officers would be of little value; the incompleteness of the same would cause confusion instead of clearness. These connecting bodies can assist in lightening and helping with the transmission of information if their own reports are intrusted to the care of mounted messengers of the 1st Cavalry and of Major D——. Nobody would think of recommending sending back duplicate messages from the different stations.

The task would be equally different should such communication be limited to discovering and reporting on the location of our advanced bodies of cavalry, and would require the same number of men. Every separation of the bodies of cavalry, every change of route, on their part, would have to be reported, and the advance-guard commander would remain in the dark concerning the object and reason for such movements notwithstanding the costly mechanism employed.

The commander of Troop C cannot think of sending out such large detachments. Resignedly he will send 3 men in each of the directions, so as not to violate his instructions. He will deplore the useless details for it is impossible for the men to comply with their instructions. They will tire out their horses, and probably will not be seen again for several days.

The greater the demand, the greater the deed. Certainly! But impossible tasks are worse than an injudicious sparing of troops. Impracticable orders shake the confidence, and the sluggish make believe compliance with them is avenged when a difficult object presents itself that could be attained by exertion to the utmost. The orders given the captain of Troop C would even then have contained an impossible feature if he had received them the preceding evening so that he could have had the connecting bodies join Colonel A—— and Major D——.

In another place we saw that it is wrong on principle to expect communication to be maintained from rear to front. Why devote time and strength to wearily search for and follow the trail of the bodies in front when these can so easily keep up communication? Besides, experience shows that efficient communication can exist only between commanders. Only the commander of the cavalry sent ahead can correctly judge the situation, only his messages are of any value; he alone must be responsible that the commander-in-chief gets timely notice of everything important and constantly knows where his cavalry is. The cavalry commander should never be allowed to justify himself by saying that according to regulations the advance guard of the army corps is responsible that communication be maintained with the cavalry in front.

Neither can we claim that we here have to deal with an exceptional case, that as a rule the division commander would retain control of all his divisional cavalry, and that he would not be lacking in troopers to keep up communication. During the march dire necessity will force every saber to the front that can possibly be spared in the army. Every troop absent from the front will reduce our own and strengthen hostile chances for success. No army is so well provided with cavalry that it could afford to leave a number of troops of cavalry with each army corps who would not be needed for reconnaissance or in battle against hostile cavalry, and who, marching along with the infantry and acting as mounted messengers, could wait for the rare opportunities of taking part in regular battle. It is true that while the cavalry divisions are clearing up in front, the army corps must be able to reconnoiter for themselves and cannot do entirely without cavalry. The assignment of 450 sabers to a (German) division, or, rather, of 900 sabers to an army corps (2 divisions), seems to comply with this requirement; of course, assuming that the troopers are mounted on perfectly serviceable and trained horses. But this

amount is too great for service with the infantry and artillery columns *en route* and with outposts. If this cavalry were to be systematically excluded from the more extended service of information, valuable resources would be idle. At times it even would be advisable for the army commander temporarily to attach a part of the divisional cavalry to the larger bodies of cavalry; and it is a question if the commanding general, of the 1st Army Corps, would not have done well to have placed Major D—— under the orders of the commander of the 1st Cavalry on May 5th. In this event it is quite possible that the operations on the Passarge would have taken even a more favorable turn. But it was a mistake to hold back the cavalry of the army corps at the beginning, an error that in a way was remedied by Colonel A——'s discernment and request made to corps headquarters. The reader will understand my object in composing the defective order first issued from corps headquarters on May 5th. It was expected that from the course of events and personal judgment the reader would discover the correct principle, which without this means might not have been brought out so clearly.

Even if on May 4th a cavalry brigade had been at Maldeuten, it would have been a mistake not to give it the assistance of the divisional cavalry. Who could tell what obstacles might be encountered on the Passarge? In a fight with a hostile cavalry brigade the three additional troops might have turned the scales.

The commanding general of the 1st Army Corps apparently was of the opinion that the divisional cavalry could not without detriment be separated from the infantry and from the control of its division commander. He did recognize the justice of Colonel A——'s request to turn over the reconnaissance towards Münchenberg-Jonkendorf to the divisional cavalry, but his preconceived ideas interfered with a thoroughly satisfactory measure. Now, after careful consideration, we must be satisfied

that there was no good reason for keeping the divisional cavalry of the second division tied to the columns of infantry. At least a part of it might have found ample occupation; and some could have been spared to help the advance guard of the 1st Division. Even when each division marches on a separate road, it may be advisable to unite the cavalry of the whole corps. But entire units of cavalry never belong in the middle of a column of an army corps marching on one road. The temporary separation of such cavalry from the control of the division commander is of small importance, considering that often there are greater deviations from the regular *ordre de bataille* in marching columns.

In discussing cavalry service with army corps we cannot neglect the squadrons of mounted orderlies. We had assumed that the following men had been detailed from Troop A: division headquarters, 8 men; each brigade headquarters, 4 men; each infantry regiment, 2 men; baggage trains, 12 men; 40 men all told. The detail was a liberal one; we could have done with less. It means a great reduction in strength for the troop. The "mounted orderly squadrons" owe their existence to the desire to save the cavalry from this depletion incident to orderly duty.*

Strictly speaking, their purpose is to increase the number of staff orderlies and headquarter guards, whose strength has been recognized as being inadequate for orderly duty on the march, in camp, and in battle. The simplest remedy would have been to increase the mounted headquarters guard of each army corps by about 150 troopers. These men require trained horses, which have to be furnished by the cavalry on mobiliza-

*Our 20 mounted orderlies per regiment of infantry (see par. 25, F. S. R.) are intended to accomplish the same purpose.—*Translator.*

tion. An increase of 60 horses in the cavalry of an army corps in time of peace would have accomplished the purpose.*

At 6 a. m. the vanguard of the 1st Division departed; the reserve following at 1,000 yards. Two companies of the 1st Battalion, 1st Infantry, march 550 yards ahead of the support of the advance guard (as an intermediate body); and in front of these are the infantry advance party and cavalry point. The remainder of Troop C, as ordered, has trotted ahead through Gr. Bestendorf.

The advance guard commander is surprised to find the baggage train of the 1st Cavalry in front of the entire advance guard of the army corps. The division commander who hears of this is unable to refrain from criticising this arrangement to his chief of staff, as he feels the train should follow the 1st Division. But, not to interfere with the march, he decides to let it

*But the one who originated the scheme was concerned that these men should be trained in their special duties in time of peace, and this seemed to be possible only by forming a separate organization. The plan was conceived of assigning a "mounted orderly squadron" [In strength such a squadron would nearly correspond to one of our cavalry "troops." —*Translator.*] to each division of infantry; and such an organization will be found with most divisions under the title of "squadron of mounted chasseurs," armed only with sword and revolver.

This is an expensive body of selected men and horses, in number far exceeding the demand for orderlies in a division. It is, therefore, fair to expect that the chasseur squadron will take the place of at least an equal number of cavalry in an infantry division.

Our example offers an opportunity to test the correctness of this idea, if we assume that we have a chasseur squadron in place of Troop C with the 1st Division.

No changes would be necessary in the distribution. Let us assume that during the march to Gr. Bestendorf the advance-guard commander learns that hostile patrols have been seen near Königsdorf and Wiese. He knows how important it is to prevent the enemy's obtaining any view of the movements of the army corps. Therefore, under his instructions, an officer and 20 chasseurs are sent from Obuchshöfchen to drive away the hostile patrols. Upon reaching Neuhof the officer notices hostile troopers on Knoll 148, near the Neuhof–Wiese road. The knoll is so much higher than intervening elevations that the highway between the woods and Mohrungen surely can be seen from it.

What will the officer do?

Apparently the valley extending north from the west end of Neuhof

alone as far as Mohrungen. The advance guard commander wishes to send an officer to the Maldeuten railway station to inquire for messages and see if he can come in telegraphic communication with the 1st Cavalry and Major D——, but learns from the division commander that corps headquarters has already taken the necessary steps in this particular. Several cyclists of the 3d Infantry had been sent to the station and would forward to the van guard any information received.

Upon inquiry the division commander further stated that corps headquarters had established telegraphic communication with the 2d Army Corps from Saalfeld via Liebemühl and that the cavalry of the 2d Corps would reach Liebemühl about 7 a. m. It therefore might be assumed that hostile reconnaissance could not take place via Tharden and Liebemühl.

At 8.30 a. m. when the van guard reached Gr. Bestendorf,

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will enable the chasseurs to advance under cover, and they may reach the south edge of the woods near Knoll 148. In the meantime the commander has discovered that a strong patrol is on the knoll, 6 or 8 men of it being dismounted. He can't do anything else but charge them. How many chasseurs will be hit by the enemy's fire during the 650 yards' advance? Or what can he hope to gain if 15 or 20 horsemen, armed with lances, ride to meet him? How much easier would 20 dragoons (of his army) attain their object. Their lances or the fire of 12 of their carbines would much more readily force the hostile patrol to retreat.

Take another case: After reaching Mohrungen, the van guard is sent to Georgenthal upon word being received that hostile cavalry is riding from Herzogswalde towards Gr. Hermenau. The captain and 50 men of the chasseur-squadron hasten on ahead of the van guard. Arriving at Georgenthal, the captain sees a hostile body of cavalry (about 120 men) about a mile ahead of him, while the infantry of the van guard has just reached Pfarrsfeldchen. Dragoons would be able to dismount and force the enemy to halt by their dismounted fire; the chasseurs are denied this means of defence. There would be nothing for them to do but get out of the way.

Take a third case: A patrol of 8 chasseurs has been sent to Herzogswalde. Returning, it encounters a hostile patrol near Gr. Hermenau. Three men of the latter dismount at the railway bridge and with their fire command the road to Narien mill, as well as the highway east of Gr. Hermenau. The chasseurs have important information, but only by a wide detour can they get it to Mohrungen. Dragoons, uhlans, cuirassiers, and hussars would have cleared the shortest way for themselves with their carbines.

War will offer many similar opportunities. The chasseur is at a

the advance guard commander learned that Lieutenant C——'s patrol found Brückendorf occupied by the enemy at 4 a. m., and that during the night and early in the morning hostile patrols had been seen at Wormditt as well as between the Passarge and Narien-see; also that Major D—— encountered hostile dragoons near Pfeilings. The general knows that the 1st Cavalry is advancing via Gr. Hermenau towards Herzogswalde, and Major D—— towards Brückendorf, but considers it advisable to send out the remaining two companies of the 3d Battalion, 1st Infantry, via Wolla–Kuhdiebs towards Paradies as already planned. He is uneasy on account of receiving no news whatever from Eckersdorf. At about 10 a. m. the van guard arrives at Mohrungen. Troop C, 3d Cavalry, halts east of the town, the two companies in advance of the support are nearing the southeast exit. In the meantime the corps com-

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disadvantage on patrol or messenger duty, outpost or escort of train when opposed to the better armed enemy, who will act all the bolder the safer he knows himself to be from bullet, and *arme blanche*. The chasseur does not replace the dragoon. The cavalry will best gain relief by an increase of its numbers.

Should the hostile patrol not discover the marching column of the army corps, the absence of lance and carbine, and the presence of steel helmet and yellow top-boot, will betray the chasseur and positively inform the enemy of the presence of infantry

Better service may be expected at headquarters from the well-trained individual chasseur than from the average cavalryman temporarily detailed for such duty, although the efficiency of the latter has so far always proved satisfactory. But aside from the fact that too much must not be expected of mounted orderlies in action, would their efficiency be diminished by their being armed with lance and carbine? Naturally, a good hunting-knife would have to take the place of the broadsword.

Thoughts on the seriousness of war have unintentionally brought us to the question of arms and equipment. It cannot be denied that arms and clothing are of tactical importance, and although this book may not be the place to discuss the matter, still, no one will be surprised if the desire makes itself felt that military judgment and activity should not be obstructed by this sort of defects. They would become manifest in the first days of a future campaign and force the conviction that no mounted man should be defectively armed and that his dress must not interfere with the use of his weapons or give the enemy any advantage over him.

(The foregoing—translated from the original—contains, as will be seen, a description of a German organization, and discussion of the same, that is foreign to our own.—*Translator.*)

mander, who is with the reserve of the advance guard, has received vague information by wire from Liebetadt of an engagement of the 1st Cavalry at Pittehnen, and orders the commander of the 1st Division promptly to send a battalion to Gr. Hermenau to at once occupy the defile there and act as a support for the 1st Cavalry. The advance guard is to continue its march to Pfeilings, but the main body is provisionally to remain at Mohrungen.

Troop E, 3d Cavalry, *en route* to Brückendorf to join Major D——, has trotted past the marching column and recently passed Mohrungen. Major D—— has reported that, aside from a large patrol which was retreating, he has seen nothing of the enemy as far as Gubitten.

One company of the left flank guard is at Freywalde, one on the Alt-Kelken–Gr. Sambrodt road, one on the Alt-Kelken–Hagenau road, one at Steinsdorf, and two more at Rollnau. The remaining two are to take up a position in the district between the Neuhof–Weise road and the Georgenthal mill.

Nothing has been seen of the enemy excepting a patrol at Hagenau.

WHAT ARRANGEMENTS ARE MADE BY THE COMMANDING GENERAL OF THE FIRST DIVISION?

The simplest thing to do would be to transmit the instructions to the advance-guard commander. But the division commander fully understands the situation with the advance guard and can see that its commander is able to send nothing but the 1st Battalion, 1st Infantry, now in the van guard, to Gr. Hermenau; for, aside from the artillery, there is only a battalion of infantry in the reserve. Neither can the required force be taken from the main body of the division, the head of whose column is now about 2,000 yards east of Gr. Bestendorf; it would arrive at the designated point nearly an hour after the van guard could. There is nothing else to do but to send a battalion from the latter and to form the advance guard anew.

For it will not do to let only the 2d and 3d Battalions, 1st Infantry, and artillery march to Pfeilings as advance guard.

Therefore, the division commander gives the following order to the advance-guard commander:

"The division is ordered at once to send a battalion of infantry to Gr. Hermenau to occupy the defile at that point and act as a support for the 1st Cavalry.

"The 1st Battalion, 1st Infantry, is available for this duty. Issue the necessary orders to have this done. The two companies marching through Mohrungen for the present can halt at the eastern exit of the town and later follow their battalion. The advance guard will be reinforced by the 3d Infantry and will advance to Pfeilings. The main body of the division provisionally will follow to Mohrungen. But I shall retain the last two companies of the regiment at the head of the main body until further orders, so that there may be some infantry in front of the 2d Battalion, 1st Field Artillery."

The measures to be taken by the advance-guard commander are very simple. He will form the new van guard of the 2d and 3d Battalions, 1st Infantry, Troop C, 3d Cavalry, and Company A, 1st Battalion Engineers; but will have the 1st Battalion, 1st Field Artillery, and the 1st Field Hospital halt at the side of the highway to follow the 3d Infantry. It would cause some delay to part of the infantry regiment if an effort were made to place the artillery between parts of it; and it is desirable to avoid such delay, because some time has been lost already by the new arrangement of the advance guard.

We can learn a number of lessons from the episode.

Who has ever seen so large a percentage of the infantry of a division in the advance guard during peace maneuvers? And yet the first principle in the matter of instruction is that nothing should be taught in time of peace that must be discarded in time of war. While we are accustomed to make certain concessions in this respect as far as formal drill is concerned, it was expected that all regulations relating to field service would hold good. Unfortunately the division commander's appeal to them

does not help him out of the dilemma. Whereas he had no idea yesterday evening of deviating from the regulations, this morning he must do so whether he wishes or not; and he must see that it would have been better if he had done so at the beginning. At the most it might be asked whether it would not have been sufficient to take only part of the 3d Infantry, so as to keep more nearly to the prescribed proportion. But every expert would have decided against this, because a division of the regiment would have been a greater evil. But we must consider a few additional circumstances before coming to a final decision.

Although no particular danger threatens the 1st Army Corps on May 5th from any direction, and although no serious engagement with the enemy is probable on this day, we still might get the idea that on account of the corps being on the flank of the army we here have an unusual case justifying an exceptionally strong advance guard, and therefore that the general rule as to strength of advance guards would still hold good for ordinary cases. But if we look at the neighboring army corps, advancing via Liebemühl towards Locken, we see that its advance guard must send at least two battalions via Tharden–Pörschken–Reuszen–Eckersdorf and two more to the south end of Eissing-see. In its advance guard, also, two regiments of infantry will not be sufficient. The wider the space intervening between the two lines of march, the more extensive and varied will be the duties of the advance guards, and as their conposition is not arranged for a few hours as on maneuvers, but for days and weeks during which the distances between the roads are constantly changing, it will be well to make them so strong that their reinforcement from the main body will be unnecessary.

I wish to go into further details concerning another objection that might be raised to my train of thoughts. It can be justly claimed that in this case we have to deal with the advance

guard of the 1st Army Corps and not with that of the 1st Division; and that therefore a brigade as advance guard would not be out of proportion according to the rule laid down in the Field Service Regulations. But these regulations themselves refute this objection by the following sentence: "In larger forces the strength and composition of the advance guard . . . . depends on the size of the leading part of the force." This somewhat elastic provision must have reference to the largest body usually marching on a single road—*i. e.*, to the army corps. It is intended to mean that in an army corps the leading division furnishes the advance guard and does so in accordance with its own strength, and not that of the army corps. This regulation is based on experience in war, where now and then special advance guards were formed for armies and army corps that did not prove satisfactory. For example, in the Army of the Elbe in 1866 an advance guard was formed of rifle battalions which broke up all troop organizations and suffered from lack of supplies because its trains were missing; while in 1870 an advance guard of the VII. Army Corps formed of a brigade of infantry with cavalry and artillery deprived the division commander of the control of half his troops and interfered with the corps commander's freedom of action.

The Field Service Regulations aim at preventing a recurrence of such an evil without thereby attempting to dispose of the question of army advance guards, concerning which the commander-in-chief can best decide. It is simply intended to prevent any army or army corps from organizing a peculiar advance guard of its own. Experience has condemned such an arrangement as injudicious, and if the leading division of an army corps marching on one road on principle looks out for the service of security and information, the requirement is best met. It goes without saying that the division following may have to see to the protection of its own flanks. Even a corps advance guard would not relieve it from this duty.

Theoretically, therefore, there is no foundation for the last named objection, for, according to the wording of the Field Service Regulations, the strength of the advance guard of an army corps should be governed by the strength of the leading part—*i. e.*, the leading division; but in reality the objection is authorized. As a rule, the great length of column of an army corps calls for a broader front of advance guard than is necessary for a division, and this requirement can be met only by the use of a larger force. Where in the past a separate advance guard was formed for an army corps, its infantry usually consisted of a brigade. (VII. Army Corps in 1870, York Corps, 1813.)

If the divisions are marching beside each other on parallel roads, they may be able to get along with a smaller advance guard. But in the vast armies of to-day this is seldom the case. It is very seldom that several roads will permanently be at the disposal of an army corps. Therefore nearly always demands will be made of the advance guard that even during the march will call for more than two regiments of infantry. During the night's rest additional demands will be made. Our example will show how much these demands may increase, and it not only is unreasonable, but also injudicious, for days and weeks to have the same troops perform outpost duty that have charge of the security of the march.*

During peace maneuvers, where the organizations are changed daily, men are spared by forming small advance and flank guards and by cutting down the strength of outposts. In time of war a weak advance guard would be unable to rotate duties among the organizations. The same men who from early in the morning until late in the afternoon provide for the security of the march, and march a number of miles on bad

*That is, the author wishes the advance guard to be strong enough so the part not in the lead or on duty as flank guards during the day will act as outposts during the night.—*Translator.*

roads or across country, must go on outpost in the evening, and the following morning must resume the wearing duty of protecting the march.

If the leading division of an army corps uses one of its brigades as advance guard,* the latter not only is better prepared to meet unexpected demands, but the advance-guard commander, who as a rule also is the brigade commander, can prevent a premature expenditure of strength by changing the subdivisions at the right time. This would be of especial advantage if opposed to superior hostile cavalry, and our own cavalry did not control the country to the front.

And what harm would there be if the division retained the same advance guard even if the other division of the corps had found a parallel road and were marching on it alongside the first one? The division will lose nothing in the way of security by so large an advance guard. Is it reasonable to think that this would induce the advance-guard commander to waste his strength? Whatever less amount now may be needed for protection on the march or in camp will be taken care of just as well as, or even better than, if it dropped back into the main body of the division.

And as long as the division commander marches with the advance guard, as now is customary, there is no danger that the advance guard will escape and lead the division into different paths from those intended by the division commander. On the contrary, with so large a part of his force present, there is more ground for the superior commander's presence with the advance guard than with a smaller amount. The distances between the parts of the enlarged advance guard can be regulated according to circumstances, the same as before. The commander can extend the parts as much to the front, or draw them as close together, as he sees fit.

*In the German Army there are two brigades of infantry in a division.

Let us examine in detail the assignment of troops in the 1st Division that we think would answer.

The advance guard should consist of the entire 1st Brigade, what is left of Troop C, Company A, Engineers, and a field hospital. Concerning artillery, the question arises whether it would not be permissible to assign the entire 1st Field Artillery to the advance guard. I do not hesitate to answer in the affirmative if there is any artillery at all necessary or authorized with it. During a march through extensive forests or mountainous country, where artillery could not be used, or would hinder the free use of infantry, or where it would be exposed to hostile attack, a battalion of artillery would be as unsuited for the advance guard as would a regiment. But why should the regimental organization be destroyed for weeks where the assistance of guns would be advantageous in an advance-guard action, and there is sufficient infantry available to support the guns? Three batteries more or less may exert a decisive influence in an advance-guard engagement; but if it should be intended to open an engagement with the entire artillery brigade, a regiment of artillery is as easily kept back as a battalion. There is no harm in separating the two regiments of artillery in the column. The brigade organization of artillery is of no importance until in battle. During the march the brigade commander surely is with the division staff.

Then the main body of the division would consist of the 2d Brigade, the 3d Field Artillery, the remaining engineers and field hospitals, the ammunition column, and the divisional bridge train.

If we erase from the mind the figures with which to a certain extent we are burdened by inheritance, nothing questionable or immaterial will be found in the distribution just described. On the contrary, it frees us from a cumbersome, artificial model which is contrary to the principle calling for the preservation of tactical organizations. It assures every

commander the permanent control of the entire force intended for his command by the *ordre de bataille*. During protracted marches there is not only a question of field orders to be considered, but also such as refer to the daily interior economy of troops. How can the commanding general of the 1st Brigade be held responsible for the fighting and marching efficiency of his entire brigade if, while advance-guard commander, he has one of his regiments removed from his control? How can he keep in harmony and close touch with his command if for weeks he fails to see half of it and is not expected to concern himself about it? Only 1,000 yards in rear of him marches one of his regiments which is becoming estranged from him, which is not learning to know its brigade commander, and yet is expected to be under his command as soon as the time for battle arrives.

It is the same with the commander of the dismembered regiment of artillery, who, tied to one of the battalions during the march, feels a responsibility for the welfare of the other one; and feels like a fifth wheel with the battalion where he is, as it has its own commander. Neither has the commander of the 1st Infantry a pleasant time. The brigade and advance-guard commander must himself deal with the battalions.

To avoid misunderstandings, he must ignore the regimental commander, who considers himself unnecessary and whose efforts concerning the interior economy of the regiment encounter obstacles everywhere, because his battalion commanders are not responsible to him, but to the brigade commander, for the execution of their orders. To give him something to do, the advance-guard commander, at least in our example, has made him commander of the reserve, where he has only a battalion of his own regiment.

How much better results are obtained by the proposed arrangement. After considering the pros and cons, we must be convinced that such an arrangement is the natural one;

that it should form the rule, and every other one be considered an unwelcome exception.

I am not in favor of changing the regulations by placing another rule in place of the one now existing. But if the commander of a cavalry division and of every body of independent cavalry is given perfect freedom in the apportioning of his command, I see no reason why the commander of an infantry division should be fettered by definite instructions and figures. And he is fettered even if in the instructions the addition of "as a rule" seems to justify exceptions. It is the fate of all rules to check independent thought. Man is not inclined to bother himself if a rule points out a convenient path and relieves him from responsibility.

A TEMPORARY HALT.

Let us further follow the march of the 1st Army Corps.

It is 10.30 a. m. The 1st Battalion, 1st Infantry, is on the march via Georgenthal to Gr. Hermenau. The second and third battalions, with the remainder of Troop C and the company of engineers, are on the way to Pfeilings. The 3d Infantry is approaching the Mohrungen railway station, where the 1st Battalion, 1st Field Artillery, and the field hospital are awaiting its arrival. The main body of the division has been ordered to leave a distance of 1,200 yards in rear of the 3d Infantry for the 1st Battalion, 1st Field Artillery.

The commanding general of the 1st Corps has gone to the Mohrungen railway station and there receiyed a telegram from army headquarters stating that the 1st Corps probably would continue its march from Mohrungen in the direction of Ramten and Locken; that the 2d Corps already had been diverted towards Langgut and Podleiken; and that the 1st Corps should provisionally halt at Mohrungen to await definite orders.

The corps commander informs the commanding general

of the 1st Division, who is in the vicinity, of the contents of the telegram, and gives the latter the following orders:

"The 1st Division will halt at Mohrungen. Make the necessary arrangements for continuing the march towards Ramten and Locken, and particularly look out for the safety of the defile between Narien- and Mahrung-see.

"I shall not continue the march from Mohrungen in less than two hours."

WHAT INSTRUCTIONS ARE GIVEN BY THE COMMANDER OF THE FIRST DIVISION?

The tactical problem of making arrangements for continuing and protecting the march through a district in which hostile parties have been encountered draws the division commander to the front. The care for his main body, whose halt of several hours' duration he would like to utilize to provide every possible comfort for his troops, impels him to stay at Mohrungen.

He now has a sufficiently strong advance guard to solve the tactical problem, which properly may be turned over to the advance-guard commander for solution. In fact, it would be wrong for the division commander to interfere with details. It therefore seems more important that the division commander should remain with the main body for the present.

Whether and where the troops of the main body possibly may form, where they are to halt, where to obtain water, whether they shall cook, whether and how Mohrungen and the neighboring villages are to furnish food, how to maintain order in the town, all this weighs on the division commander; for there is no commander of the main body.

If there were one, would the division commander have any doubt as to where he should now be? Would he fail to take advantage of the unusually favorable opportunity to personally examine the ground where his division may have to fight to-morrow? His riding with the advance guard during the march, where he by no means wishes to meddle with the details

of command, serves the purpose of promptly enabling him personally to see the enemy and the country. Shall he now remain with the main body on account of its interior economy? A ride of three-quarters of an hour will bring him to the vicinity of Horn. How much more practical and well founded will his arrangements be if from an elevation near that village he himself has seen the surrounding country in broad daylight than if he must make them based on the map and messages received. No great general, no experienced commander, has ever missed an opportunity to make a personal inspection.

Therefore the division commander will not hesitate to obey the voice calling him to the front, to the head of his troops. Of course he must not expose himself to surprise by hostile troopers. He takes the remainder of Troop C along. There are three other troops ahead of him, and in case of necessity he will depend on his swift horse. We shall often find that generals need swift horses even if not in the cavalry. After the division commander has reported his decision to the corps commander, he informs the advance-guard commander of the new situation and orders him to start the advance guard towards Pfeilings and then to join the division commander with Troop C for the ride to Horn.

The main body and baggage train are placed in charge of the commanding general of the 2d Brigade. The latter is ordered to halt at Mohrungen, and the division commander still has to give him instructions how this shall be done.

There would be no use in having the entire main body or even a part of it form in mass. The troops would have to form in marching column again even if the march should be continued for a short distance only. The troops will be able to rest promptly if all halt in column on the road; but this must not be entirely taken up either by the infantry stacks, artillery, or teams.

It is almost always impossible for large bodies of men to cook a meal during a halt *en route*, on account of scarcity of wood; and it usually causes the men more exertion than refreshment. In the present case there will be no thought of this, because the two hours' intermission would not suffice, and with good management the men will have had a good breakfast and will have ample food in the haversacks. There is no objection to feeding the animals. It would be a mistake not to feed the oats that have been brought along, even if they are supposed to form an emergency ration. It is also advisable to provide water for men and animals, even if there is no summer's heat. The obtaining of water cannot be left to the discretion of the organizations. They would naturally interfere with each other; in running water the animals would muddy the water and make it unfit for men. The taking of water must be regulated both as to place and time.

Care must be taken to systematically utilize the resources of Mohrungen, Gr. and Kl. Bestendorf, Gr. Wilmsdorf, Obuchshöfchen, and Alt Kelken. They at least can supply water, and possibly also bread and oats if the commanding general authorizes this, taking into consideration the needs of the 2d Division, which is following.

The division commander would have to order all these things if he did not delegate them to the commanding general, 2d Brigade. Anyway, he must send for the brigade commander and must give him general instructions as to what is to be done, because the latter is not familiar with his new dutiess. How different it would be if the brigade commander for some time had been in command of the main body by virtue of the distribution of troops! In this event he would have been at the head of the main body and the only thing necessary would have been an order (from the division commander): "The main body will halt for two hours along the road when the head of its column reaches Mohrungen." The execution of this order

would not be difficult for the commander, who from experience already knows the needs of the main body composed of all branches of the service and who has a full knowledge of the situation.

I can find no objection to permanently having a commander designated for the main body, and in practice have come across no case where such action could have been detrimental.

The objection can hardly be taken seriously that the commander of the main body might abuse his authority and leave the column without cause or authority. He would rather be be able to prevent such action on the part of subordinate commanders; for example, a too zealous artilleryman. But this arrangement results in the great advantage that in the main body there will be a commander responsible for order and protection of the column. The eye of the division commander, who is with the advance guard, does not reach back to the main body; only exceptionally will he be able to do the right thing.

Every movement of a large body of men causes friction that can be more easily removed by a commander of the whole force on the spot. Only an inexperienced commander will feel certain that the written orders for the march will control the troops as if these were led on a string and be sufficient to meet all obstacles without having anyone present to see that the orders are carried out, or able to interfere and make any absolutely necessary changes or arrangements against the enemy. The Field Service Regulations state that it may be advisable to have small bodies of infantry march between fractions of a long column of artillery. Is this to be done solely when arranged for the preceding day in the distribution of troops for the march? Is it not possible that the utility of such an arrangement may become evident only after the march has begun? In such event must permission always be obtained from the

division commander, who is far in advance, or is it to be done by a friendly agreement between the infantry general and the artillery colonel, who by rights have no authority to change the order of march? Are not the division commander's orders, addressed to the main body, more likely to be thoroughly carried out if they are addressed to its commander than to its component parts?

The astonishing custom of not designating a commander for the main body of a division—a custom, and not a regulation—is a relic of the time when the division commander as a rule remained with the main body, an historical tradition that has saved itself from the past and makes life more difficult for us. If the division commander happens to be with the main body, its commander appointed by the former will not be an obstacle in his way. We have gradually learned that on the march the proper place of the commander-in-chief is very far forward if he hopes to direct his troops according to his own ideas and insight. We simply have failed to draw correct inferences from this.

We might be inclined to believe that the first few days' march in a campaign would remedy the error, if for no other reason than because the prescribed rests *en route* cannot be properly carried out without a responsible commander present with the main body. This supposition is not altogether correct. In time of war halts of large bodies of troops on the march will as far as possible be omitted. Let us look at our example. According to regulations, there shall be a short halt soon after beginning a day's march.* For the 1st Division *en route* to Mohrungen this time would have arrived when the van guard had reached Seegertswalde or Maldeuten. But at this moment a large part of the main body of the 1st Division—the infantry at Saalfeld and Kuppen, the field hospitals, and the divisional bridge train—would not yet have begun the

*See par. 234, F. S. R.

march. The 2d Division, in front of which the ammunition column and baggage trains of the 1st Division still must take place, to a large extent would still be in its quarters. But if the 2d Division later wishes to take advantage of the prsecribed halt, possibly when the head of its column has reached Woritten, the distance of 100 yards it is to maintain from the 1st Division will presumably be increased to 1,000 yards. The division will hardly have resumed its march when the 1st Division would again halt. Its van guard, after marching 8 or 10 miles, has completed the greater part of its day's march. The time has come for it and the leading part of the 1st Division to have the long halt of half an hour or an hour. This will force the 2d Division to make a correspondingly long halt after its leading troops have marched about 5 miles and the rearmost ones about 2 or $2\frac{1}{3}$ miles. The latter, after this long halt, will still have to march 12 or 13 miles if they are to reach Gr. Bestendorf to-day. Only a small part of the command would derive benefit from the halt, and this would be impaired by the unavoidable interruptions of the march.

Theoretically the time for rest could be regulated by massing of the troops; but there is not always room alongside the road to thus form the troops, and, in addition, it takes time and strength.

In some armies a remedy is sought by designating a fixed time for halts. It is hoped that checks and delays will be avoided by specifying a certain hour when, without further orders, everything on the road will halt.

It is self-evident that but little will be gained by this. For example, if in our case 10 a. m. were announced as the time for the one hour's halt to begin for the entire corps, matters would stand almost exactly as above described. The head of the 1st Division would be near the end of its march, and the tail of the 2d Division would have but recently begun its march. But the commander very seldom can tell whether the situation

at any particular time will be favorable for a halt, and it is more hazardous and troublesome to make any change in an order issued on the subject beforehand than to issue one on the march. An order to halt issued to the leading subdivision of troops will promptly bring the whole column to a halt, as such an order quickly travels along the entire line.

Then there is the regulation that "there should be a halt of ten minutes every hour."* The requirements of constantly changing conditions in an actual march conflict with any such mechanical regulation. The march of a long column following this rule will be subject to checks and interruptions; though in some cases it would cause considerable hardship to omit the customary halts prescribed by regulations.

It is therefore to be recommended that in the movement of unusually large columns all the troops make a halt before joining the column on the main road, and after that continue without halting unless the length of march, intensity of heat, or other unfavorable conditions force a halt. The unfavorable influence exerted on operations by long columns makes it desirable to thoroughly investigate the subject.

At 10 a. m., when the van guard of the 1st Division reaches Mohrungen, the tail of the 2d Division is still near Weinsdorf. Even if there is no long halt, and no interruption whatever of the march, the last troops of the army corps will require 5 or 6 hours to reach Gr. Bestendorf. If an engagement should take place near Mohrungen—as might be the case under a different "general situation"—these troops would not be able to take part until about 5 p. m., after a march of nearly 22 miles. The ammunition column and battalion of heavy artillery would not reach the battlefield until sunset. But in such case the situation of the 1st Corps would not be a particularly unfavorable one; in most cases, where an army corps marches on a single road, conditions would be less favorable. If from

*Par. 234, F. S. R.

this we realize that when the head of an army corps encounters the enemy late in the day it will seldom happen that the corps can develop its full strength on the same day, means must be adopted to shorten the length of the column. Undoubtedly the best expedient is to use additional roads—at least, the infantry should, and in so doing must not hesitate to march considerably farther. But where, as in our case, only one road is available, the column can be more crowded. The width of the the highways will permit the infantry to march on a broader front than column of squads. It is probable that on the fine road from Saalfeld to Mohrungen the artillery could march in double-section column, two carriages alongside each other, and the greater part of the train in the same way. Thus the different units as well as the entire corps would be able to deploy for action more quickly, and the day's march would be shortened.

It is quite likely that many of you with a shake of the head, as I have often done, have compared the narrow front of our marching columns with the broad space beside them used occasionally only by mounted officers or possibly without authority by led horses.

Of course a space is desirable alongside the marching column to enable a rapid transmission of messages and orders. But this does not require half the width of the road—a narrow strip will do if it only is kept clear—in time of peace. In time of war the messenger or adjutant often will make his way alongside the road. In time of war, too, no farmers' teams or spectators' carriages will meet the column and be entitled to room. It is therefore not necessary to be too insistent on a small front for the troops. In times past, under Frederick the Great and Napoleon, columns marched in a much broader front, at times leaving the road for the exclusive use of teams. The infantry marched in the fields alongside. Of course this called for great exertions, but these were in part repaid by an earlier arrival at

their destination. During 1866 and 1870 we ourselves seldom used a column of squads on the march. On account of the importance of the subject, in every case it should be carefully considered whether a shorter march formation cannot be adopted. Careful commanders can forestall any delay at specially narrow places by diverting the infantry to side roads or across open fields. Measured on the road from Drenken to Gerswalde, the space in which the 1st Army Corps camped on May 4th is only about half as long as the marching column. This may be considered a mistake on the assumption that the march would be less irksome if the troops were not crowded so much in quarters. This is theoretically correct. If the quarters are spread out over the same space as the column of route, all the troops can start at the same hour and simultaneously arrive at their destination if their new quarters again correspond in length to that of the army corps. But the war conditions, the situation, the number and size of villages on the line of march, will but seldom permit this. In our case the Finkenstein Forest necessitated a closing in of the troops on May 4th unless we wished to leave part of them behind between Riesenburg and Finkenstein; for the point, arriving at Finkenstein on May 3d, could go much farther than Barten and Drenken on the 4th. But it would be contrary to the requirements of the situation to leave the tail of the column in the vicinity of Saalfeld and Woritten to again occupy quarters along a length of road corresponding to the length of the marching column. The 2d Division quartered at Mohrungen (on May 5th) can be utilized early on May 6th either at Gr. Hermenau or at Eckersdorf and Reuszen; it can even give timely assistance at Locken. Whereas troops quartered at Woritten and Saalfeld could not be counted upon for assistance on May 6th. And, besides, the depth of quarters would increase the difficulty of drawing upon the supply columns in rear. Therefore in most cases the crowding of troops in cantonment districts cannot be avoided; at least not as long as the army corps must march closed up as much as possible.

QUARTERS AND COMBINED OUTPOSTS.

Shelter and Subsistence.

The commander of the 1st Division at 11.30 a.m. arrived at Knoll 145 northeast of Kranthau, where he was able to obtain an extended view of the country. Nothing is to be seen of the enemy as far as Reichau, the vicinity east of Willnau (Height 160), or towards Gubitten. The inhabitants of Kranthau know only of a hostile detachment of 12 to 15 troopers which passed through Kranthau to Pfeilings between 6 and 7 a. m., remained there some time, and about 8 a. m. trotted back to the Tomlack Forest via Horn railway station (H. St. Horn).

But the division commander noticed a large hostile patrol near Eckersdorf and sent the main body of his troop after it, retaining only 10 troopers with himself. The enemy promptly withdrew towards Ramten; the troop remained at Eckersdorf. The country people claim a while ago to have heard a faint sound of rifle-firing from the east.

At 12 o'clock, noon, the van guard (2d Battalion, 1st Infantry, and Company A, 1st Battalion Engineers) arrived at Horn railway station and sent a platoon to Horn and another to Kl. Luzeinen.

Riding back, the division commander at 12.30 p. m. finds the reserve of the advance guard (3d Battalion, 1st Infantry, the 3d Infantry, the battalion of artillery, and the field hospital) at Pfeilings and learns that two companies of the 3d Infantry are posted at Himmelforth, two companies of the 3d Battalion, 1st Infantry, are at Paradies, and the other two at Venedien. At the same time he receives the following, carried by a cyclist:

Headquarters, 1st Army Corps, MOHRUNGEN,
5 May 04, 11-30 a. m.

FIELD ORDERS
No. ———

1. Word has just been received from the 1st Cavalry that it dispersed a hostile troop of cavalry at PITTEHNEN. The district along the PITTEHNEN–GUTTSTADT road seems to be free from the enemy. Five (5) hostile troops were seen near HEILIGENTHAL at 8 a. m. to-day.

2. The 1st Army Corps will discontinue its march for to-day. The 1st Division will be cantoned in HIMMELFORTH, PFEILINGS, HORN, and KRANTHAU; the 2d Division at MOHRUNGEN, NEUHOF, KL. and GR. BESTENDORF, WOLLA, KUHDIEBS, and PARADIES.

The 1st Division may call in the troops employed by it in protecting the flank of the marching column. A railway train is ready at MISWALDE to bring the two battalions west of the Overland Canal to MOHRUNGEN The battalion at Gr. Hermenau will remain there and will be under the corps commander's immediate orders. The main body of the 1st Division has been ordered to continue its march to HIMMELFORTH at 12-45 p. m.

3. Officers will report for orders at MOHRUNGEN at 7 p. m. to-day

By command, etc.

At 12.45 p. m., after the division commander read this order, two men of Troop A, 3d Cavalry, delivered the following message to him:

Near SOOBEN,
5 May, 11-40 a. m.

To the Chief of Staff, 1st Army Corps:

After 9 a. m. to-day, I found the Brückendorf railway station occupied by the enemy and attacked him dismounted, but could not dislodge him He had at least 200 men in the firing-line. I could not tell whether cavalry alone or cavalry and infantry were opposed to me, as the uniforms are very much alike. My casualites were 3 dead and 14 wounded; the latter are in Brückendorf. I shall attempt to cross the Passarge at Kloben or Kallisten with Troops A and B and reconnoiter towards Münsterberg–Jonkendorf. I have ordered Troop E to watch the enemy at Brückendorf and prevent his reconnoitering towards Mohrungen.

D——
Major.

The message is in an unsealed envelope. The two troopers state that the engagement at Brückendorf lasted over an hour; and that they met Troop E at Gubitten, its captain reading the message.

WHAT ARRANGEMENTS DOES THE COMMANDER OF THE FIRST DIVISION MAKE AT 12.45 P. M.?

There will be no difficulty finding shelter for the division, although it might be a little crowded. Naturally the command-

ing general's orders would not prohibit a slight extension of the cantonment district, providing that no place is occupied that has been assigned to the 2d Division. Although we are not yet certain how matters are at the front, whether there is not some hostile cavalry at Ramten or Locken, and whether or not the enemy is still at Brüekendorf, there is no reason for delaying the troops in their occupation of quarters. Should hostile cavalry actually appear west of the Passarge to-day, the advance guard would drive it back. There is no reason for shortening the period of rest on this account; such anxiety would be unmilitary. Not counting detours, the advance guard has marched over 15½ miles and has been astir since 5 a. m. The main body will not reach Himmelforth before 2 p. m.; and an hour and a half more will be necessary before all its units reach their quarters. It will be 5 p. m. before the baggage train joins the advance guard. It will be later in the evening before the 2d and 3d Battalions, 2d Infantry (now at the edge of the woods between Freywalde and Neuhof), and the two battalions of the 4th Infantry (which are to be brought up by train from Miswalde) will join the division.

It is evident that notwithstanding the very early arrival at the destination and the prompt orders of the corps commander, it will be late before the entire division can rest. And it will be instructive to cast a glance at the 2d Division, the head of whose column will be only a short distance past Saalfeld. By the time this reaches Gr. Bestendorf it will be 5 o'clock, and its last wagons, following the battalion of heavy artillery, will not reach the quarters before 7 p. m. The rations consumed from the baggage train must be replaced during the night from the supply columns.*

Although but few villages are available, the division commander would not think of having part of his men bivouac. The poorest shelter under roof, as a rule, is preferable to biv-

*See par. 382, F. S. R.

ouacking,* at least in European countries; and our grand maneuvers serve to remind us that a great many men and animals can be sheltered in a small space. And subsistence can be better arranged for in quarters than in bivouac. It is manifest that food supplies will be requisitioned from the villages without waiting for the baggage trains;† no division order is necessary for this. The method of supply should be regulated; and the very first days of a campaign afford such practical lessons in this that it seems unnecessary to theoretically discuss the subject. But it is well to remember that there is no danger of want as long as cattle can be obtained in the country. It is claimed that freshly killed meat is unpalatable or hurtful. Large bodies of troops in Europe and distant countries for weeks and months have subsisted on freshly killed cattle without bad results.

Keen hunger and good cooking help to overcome its peculiar taste. In the same way, thoroughly baked fresh bread may be eaten as soon as baked. We also prefer freshly-baked to stale bread in ordinary life. Besides, freshly baked bread very readily spoils if loaded on wagons. Bad water is more harmful than fresh beef or bread. Both troop commanders and surgeons must carefully investigate its quality.

Food supplies will be requisioned not only in the villages where the troops are quartered, but also in neighboring ones, in so far as they are not assigned to other bodies of troops. Therefore there is no danger of being short of meat. Flour must be obtained, so each man may have a liberal supply of bread the following morning, and bread must be baked in all the ovens. Sometimes the number of ovens is quite limited. In addition, the soldier's meat-can must help out with cooking facilities.

*See pars. 593–4, F. S. R.

†See pars. 373-4, F. S. R.

It will be more difficult to provide for the large number of animals in the division than for the men. The barns will be far from full, only a couple of months before harvest-time. As a rule, there will be especially a scarcity of oats. So it will be necessary to use other varieties of forage, which shows how important it is to accustom animals to them in time of peace and familiarize the keepers with the precautions to be taken in their use.

If we assume that May 5th is not the first day of the campaign, and that the troops already are used to camp life, the division commander may confine himself to the following short order at 1 p. m.:

Headquarters, 1st Division, 1st Army Corps,
PFEILINGS, 5 May, 1 p. m.

FIELD ORDERS
No. ———.

1. The 1st Army Corps will remain near MOHRUNGEN; the 2d Division in MOHRUNGEN, GULDENBODEN, PARADIES, KUHDIEBS, GR. BESTENDORF, and to the north.

Corps headquarters: MOHRUNGEN.

2. The 1st Division will be cantoned as follows: Advance guard: REUSSEN, SCHWENKENDORF, HORN, KRANTHAU, KL. LUZEINEN. Main body: HIMMELFORTH, PFEILINGS, GR. GOTTSWALDE. Division bridge train: SITTEHNEN. Division headquarters: HIMMELFORTH.

Regimental headquarters and the 2d Battalion, 1st Field Artillery, will join the advance guard.

3. Information is expected soon concerning the situation at RAMTEN and LOCKEN; likewise concerning the position of Troop E, 3d Cavalry. The defile between MAHRUNG- and EISSING-SEE must be constantly watched.

4. The baggage trains and ammunition column will be brought to HIMMELFORTH, where the former will be at the disposition of the commanders of the advance guard and main body.

5 Officers will report for orders at HIMMELFORTH at 9 p. m.

By command, etc.

A verbal order to the adjutants will be sufficient to bring in the detached troops and to have the battalion of 1st Infantry stay at Gr. Hermenau. The chief surgeon of the division will be ordered to care for the wounded of Troops A and B at Brückendorf. The division commander cautions him that if the enemy is seen there, the latter must not be allowed to obtain

any information. The surgeons sent out are to be instructed concerning their conduct and that their supplies must be taken along in farm wagons. The lettering on Army transportation might give the enemy valuable information.

The baggage train of the 1st Battalion, 1st Infantry, is sent to Gr. Hermenau. The chief of staff endeavors to have telegraphic communication restored between Horn railway station and Mohrungen, possibly also with Ziegenberg, and will not neglect to obtain information from the inhabitants concerning the enemy and the country, particularly concerning the nature of the Passarge and its bridges, the meadow lands and roads. Provisions, cattle, bread and forage will be obtained from Eckersdorf and Willnau. It is impracticable to wait with drawing supplies from neighboring villages until it is ascertained whether or not the villages in which troops are quartered have a sufficient supply. Any surplus can be loaded in the regimental wagons or the supply column following. The cyclists of the main body, in charge of an officer, are particularly adapted for this duty. At least one-half of those belonging to the main body will be available. The advance guard will need its cyclists with the outposts.

Prolonged marches will induce the commanders of the advance guard and main body to have part of the cyclists at the head of their respective columns for use in case of necessity.

The order contains no instructions concerning outposts. The service of security and information always is the province of the advance guard.

In establishing the cantonment we again see the advantage of having the main body under the command of the commanding general of the 2d Brigade.

It is not necessary for the division commander to bother himself about the different parts of the main body; the brigade commander, who otherwise would have nothing to do but go to his quarters, can relieve him of this office.

Although there is no tactical reason for assigning the 2d Battalion, 1st Field Artillery, to the advance guard, it seems advisable on the score of obtaining good accommodations, and on May 6th this assignment will be retained if the division commander has become convinced to-day that he will need the entire 1st Brigade in the advance guard.

The division order does not contain any information about the enemy. This will often happen in war, when the commanders concerned can receive verbal information on the subject. A repetition of this in the order here would simply be a concession to the model.

The order, with necessary additions, particularly concerning the cyclists, will be sent to the main body.

But, on account of the strained situation and the proximity of the enemy, the division commander cannot yet look up his quarters. He considers it necessary first to listen to the advance-guard commander's orders, and then again to go into the territory in front of his position.

SECURITY AND INFORMATION.

The advance-guard commander's orders will conclude the day's work of the 1st Army Corps, which we have followed in spirit, and will be the capstone of the structure portrayed in Part II. of this study.

I would recommend that such readers as wish to solve this problem for themselves unreservedly try their own skill at it, without consulting Field Service Regulations or any other textbook. It surely would be impracticable to consult a book in time of war.

WHAT ARRANGEMENTS WILL THE ADVANCE-GUARD COMMANDER OF THE FIRST DIVISION MAKE ABOUT 1 P. M., MAY 5TH?

(There are 30 men of Troop C under its captain at Eckersdorf; 10 men are with the van guard at Horn railway station.)

The problem can be solved in a variety of ways, and any arrangements would be suitable that secure the division against surprise. It is desired that hostile patrols be kept at a distance, and that the advance guard find a place which will furnish supplies and force as few men as possible to bivouac. And finally, everything must be done in the way of reconnaissance that the means at hand will possibly permit.

Towards the east the nature of the ground favors protection. Occupying the defile between Narien- and Mahrung-see secures protection from surprise as well as from hostile reconnaissance in this direction, and can be effected with a small force. There is wider scope in arranging for protection towards the southeast and south. It would do to have protection depend on the infantry occupying the villages of Reuszen, Schwenkendorf, and Horn. It is probable that pickets posted on the roads leading towards the enemy and companies in alarm-quarters* at the village entrances would give sufficient protection. It is true that in this case there would be no regularly detailed outposts responsible for protection, which seems a doubtful proceeding in view of the nearness of the enemy; and a surprise might involve villages in which artillery is quartered. This must be avoided as much as possible. Besides, the hamlet of Schwenkendorf on the main road would have to be overcrowded with troops and the entire advance guard would have to be in a high state of readiness, which would interfere with recuperation.

Therefore it seems more advantageous to have a force of infantry march $3\frac{1}{2}$ miles farther—to Eckersdorf—and intrust it with outpost duty in the section between Gehl-see and Mahrung-see. This will increase the area available for quartering troops, will make it safe to collect supplies in the large village

*In this case troops would be crowded into a smaller space than if in ordinary quarters; the men would remain dressed, with arms at their sides, and a light burning in each house, with a man on guard.

of Eckersdorf, and will support reconnaissance towards Ramten and Locken. The infantry in Reussen can undertake outpost duty towards the south.

The following order might result from these reflections after hearing the regimental commander's suggestions concerning the distribution of battalions and batteries:

Advance Guard, 1st Division, 1st Army Corps,
PFEILINGS, 5 May, 1 p. m.

FIELD ORDERS
No. ———.

1. The 1st Cavalry dispersed a hostile troop of cavalry near PITTEHNEN, and located five other troops near Heiligenthal. BRUCKENDORF was in possession of the enemy this morning. Major D—— attacked there with Troops A and B, 3d Cavalry, but could not dislodge the enemy; he then advanced via Kloben and Kallisten. Troop E, 3d Cavalry, has advanced via Gubitten to Brückendorf with orders to watch the latter place.

The 2d Army Corps will not march to Locken, but has been deflected from LIEBEMUHL to LANGGUT and PODLEIKEN.

The main body of the division will remain in PFEILINGS, HIMMELFORTH, and GR. GOTTSWALDE; division headquarters at HIMMELFORTH.

2. (*a*) The reserve of the advance guard will take quarters as follows:

Regimental Headquarters and
1st Battalion, 1st Field Artillery,
Company A, Engineers,
Field Hospitals, } Horn.

2d Battalion, 2d Infantry,
Battery E, 1st Field Artillery, } Schwenkendorf.

Regimental Headquarters, 3d Battalion,
2d Infantry, 3d Battalion, 1st Infantry
(from Venedien and Paradies), } Reussen.

Battery D, 1st Field Artillery,
Headquarters Advance Guard, Horn.

(*b*) Outposts:

Southern Section, Colonel O——:
Regimental Headquarters and
2d and 3d Battalions, 3d Infantry, and
Remainder of Troop C, 3d Cavalry,
now at Eckersdorf, extending from Mahrung- to Gehl-see.
Reserve: Eckersdorf.

Reconnaissance to be conducted via Kämmersdorf and Locken. Prompt report is expected concerning the situation at Ramten and Locken. The defile between Mahrung- and Eissing-see is to be constantly watched.

An attempt will be made to obtain touch with Troop E, 3d Cavalry, via Magergut, and report of its location to be promptly reported to these headquarters.

Northern Section, Lieutenant-Colonel P——·
2d Battalion, 1st Infantry,
1st Battalion, 3d Infantry,
10 men Troop C, 3d Cavalry,
Battery F, 1st Field Artillery,
in the defile between Mahrung- and Narien-see.
Reserve: Kranthau.

Reconnaissance to be carried on towards the Passarge. A strong patrol of cyclists will be sent to Kallisten. Prompt report is expected concerning the location of Troop E, 3d Cavalry.

(*c*) The regimental commander 2d Infantry at Reussen will arrange for outposts towards the south, conferring with the cantonment commandant* of GR. GOTTSWALDE on this subject.

(*d*) The various cantonment commandants will be responsible for the interior and exterior guards of their respective villages. (In Horn the colonel 1st Artillery will be cantonment commandant.)

3. Officers will report for orders at Horn at 10 p. m.
By command, etc.

After inquiry among the adjutants, all cyclists of the advance-guard reserve are ordered up to the outpost sections.

Many an order worded quite differently from the above will answer the purpose; mine will serve as a basis for some additional remarks.

In the first place, I wish to explain two of the measures that call for remarks.

A battery has been assigned to the northern section of outposts. In this way Kranthau can be used for sheltering the horses. Horn certainly is a large village, but when you count the animals belonging to the headquarters, train, and artillery, it will be quite a relief to have horses of one battery less to care for. Besides—and this is the most important reason for detaching the battery—a few guns posted on the height near Kranthau will command the road to Willnau and in certain cases might do good service there during the afternoon or early next morning.

This outpost section has the 1st Battalion, 3d Infantry, while the other two battalions are in the southern section. On

*Similar to our officer of the day.

paper such objectionable separation easily could be avoided, but it often is otherwise in actual life.

It might seem profitable to many of my readers to consider the

ARRANGEMENTS MADE BY THE OUTPOST COMMANDERS AND THEIR SUBORDINATES.

although these present no special difficulties.

About a battalion will be required as supports and pickets in the southern section: a support of two companies at the southern exit of Eckersdorf, the other in Katzendorf. Pickets from the former will be stationed on the highway and the roads leading south from Eckersdorf, and from the latter at the Katzendorf–Gehlfeld and Katzendorf–Draglitz cross-roads; while the reserve, which will occupy alarm-quarters in Eckersdorf close behind the support, will see to the guarding of the village and will send a detachment to the small farm-yard nearly a mile east of Eckersdorf (near the letter *f* of the word "Eckersdorf"). Only the small remnant of Troop C is available for reconnaissance. We therefore must do without mounted orderlies at the supports and reserves; this can easily be done, because there is a cyclist with each company. It is hoped that a sufficient number will be on hand to admit of sending a patrol of cyclists via Magergut to Brückendorf, to relieve Troop C from the necessity of establishing communication with Troop E. In the evening the patrol could be established at Ramten as a detached post to observe the ground between Mahrung- and Eissing-see.

It cannot be foreseen when Troop C will return from reconnaissance from Kämmersdorf. Quarters will be provided for it at the northern exit of Eckersdorf. Unless unusual circumstances should detain it at the front, such as would demand and warrant the sacrifice, the troop should be able to have un-

broken rest during the night. The prospect of this justifies the troop commander to act energetically the remainder of the afternoon. He has come less than 20 miles to-day, measured along the road. He accompanies the division commander in the ride from Mohrungen to Kranthau and was able to obtain a profound insight into the military situation. It cannot have escaped him that the unexpected change of direction of the 2d Army Corps to all appearances has disarranged the reconnaissance service. His ambition urges him to help matters along. The wording of the orders he received from the outpost commander is not of much importance. No matter how much the prospect of safe quarters might tempt a cautious troop commander to occupy these early, who knows if the campaign will again offer a similar opportunity of important service and brilliant action. The training of the young cavalry commander, his habit of self-dependence and initiative, enable him to grasp the full scope of the situation and realize the value of definite information concerning the conditions east of Kudipper Forest (Kudipper Forst).

There is a large group of hostile troopers in his front. It is therefore unlikely that small patrols will be able to get through, or that their messages will come back in time. In addition, he is anxious to see with his own eyes. Therefore he concludes to depart with all of his men that still have serviceable horses; a decision that is more easily arrived at on account of the cyclist patrol advancing to Ramten and Magergut. He chooses the route via Kämmersdorf to Windtken, where he is less likely to encounter superior numbers of the enemy than on the principal road to Stenkienen. By keeping his men together he increases the chances of overcoming hostile resistance and of taking prisoners or intercepting hostile messages. It will be all the better if he can water and feed before starting.

It is 6 miles to Labens-see. Therefore he may be able to get a view of the vicinity of Windtken and Stenkienen and still

get back to Eckersdorf before dark. It would be more difficult for the captain of a "chasseur squadron" to come to this decision. The latter lacks the proper weapons. A very few hostile carbines would be able to bar the way forwards or backwards.

A battalion also will be used as supports and pickets in the northern section; two companies having their support at Kl. Luzeinen, and two more at the farm buildings about 650 yards south of the railway on the Kl. Luzeinen–Schwoiken road. The front is less than a mile in extent, but the neighboring Tomlack Woods facilitate the enemy's approach to such a degree that a strong line of outposts seems advisable.

As both supports are at farm buildings, a number of conveniences will be forthcoming. If hostile infantry should be discovered on the Passarge, it might be advisable to have two other companies bivouac at Zimek-see as an immediate reserve.

The regular reserve will occupy alarm quarters in Kranthau with a lookout on Ridge 145. Two mounted orderlies are assigned to each support. The six other troopers can take quarters with the reserve of the outpost after having investigated the situation at Brückendorf.

We shall not go into the details of duty with the outposts. This could be discussed to advantage only on the ground itself. Besides, this duty is so carefully taught in the German Army that the discussion of a case by means of a map may be omitted. War would quickly strip off anything pedantic from peace training.

Of course there are disadvantages connected with the stripping process, as every commander learns who is confronted by the enemy. A realization that certain laboriously learned and practiced things are not suitable in war and must be changed easily leads to a general discarding of regulations, and thus much that is necessary and good is thrust aside with superfluous and harmful matter. As the regulations necessarily are encumbered with defects inherent in all human efforts, it is right to

attempt ridding them of any useless burdens, and the longer peace lasts, the more energetically this should be done.

For example, is it worth while to devote time to examining-posts, as is done in the German Army?

To ease up on most of the double sentry-posts, all persons wishing to pass the chain of sentries are to be sent to the examining-post, whence they are to be taken to the picket. In time of peace the instructions are memorized, but not carried out, because traffic must not be interfered with during maneuvers. In time of war the provision would be inapplicable wherever there is no continuous chain of sentries. In addition, it seems questionable to send people elsewhere who come from the direction of the enemy. Instead of going in the direction indicated, they might go back, which could not be prevented at night. The sentry-post would have accomplished the opposite of what was intended. At least in hostile territory the news as to the location of our sentries would quickly spread. Would it not be more effective and simple to order that all persons coming from without the lines should be arrested and that no one be allowed to pass beyond them? Such a regulation could be carried out, for there will be pickets or groups in charge of non-commissioned officers on all roads, and besides, in time of war traffic carried on by the inhabitants would be very slight.

But this matter is of small importance compared with the complicated and clumsy provisions that formerly oppressed us, and yet in their day were considered necessary and useful; viz., those that held the outpost commander responsible for the location and instruction of every individual picket and sentry-post; that required every sentry to learn certain complicated formulæ to be used in the examination of patrols, country people, flags of truce, and deserters; and that endangered the life of every officer who did not know the countersign.

Any peace training having for its guiding principle the provisions of the German Field Service Regulations specifying that *rules cannot be formulated that will fit all outposts, but that in every individual case the composition, relation of command, and details of the service must be regulated by existing conditions*,* will prove satisfactory in the face of the enemy.

If we take a general glance at the outposts on the afternoon of May 5th, we shall see a screen stretched from Reussen through Katzendorf and Eckersdorf affording ample protection against hostile enterprises likely to be undertaken during the remainder of the day or during the night. Presumably the outpost commander on his tour of inspection would nowhere find double sentry-posts without their reliefs close at hand. This surely would be the best arrangement on the march. It does not require any more men, saves the reliefs from going long distances, makes use of the intelligence and authority of non-commissioned officers, and strengthens the advanced firing-line.

There seems to be nothing lacking for the safety of the reserve of the advance guard or of the main body of the division. Nobody need become excited if a few shots are fired at the outposts. In rear of the latter everything would be made ready for action without confusion or precipitation, should the enemy advance, even if the advanced cavalry should be late in giving notice, or entirely fail to do so. And yet the orders of the advance-guard and outpost commanders violate certain provisions of the (German) regulations. They state, with reference to the outpost commander's orders, that these must always indicate what action the outposts must take in case they are attacked.† They invariably must afford the main body time to prepare for action.‡ But they should invariably be told

*See par. 129, F. S. R.

†See par. 145, F. S. R.

‡See par. 125, F. S. R

whether after this they are to fall back or continue in posiiton until troops from the main body have joined them.* And the advance-guard commander is required to indicate to each subordinate what action the latter shall take in case the enemy attacks.

It is quite likely that some of my readers who have worked out the duties of the advance-guard and outpost commanders failed to comply with these requirements, as was the case with me, and it is worth while to consider how these omissions might be rectified.

WHAT ORDERS SHOULD THE ADVANCE GUARD AND OUTPOST COMMANDERS ISSUE WITH REFERENCE TO ACTION OF THE OUTPOSTS IN CASE OF ATTACK BY THE ENEMY?

I should very much like to see my readers' solutions to the foregoing problem, for I must confess that I cannot find a satisfactory one myself.

It is no trick to formally comply with the requirement. How easily could the following be added to the advance-guard orders: "In case the enemy attacks, the outposts will hold their ground until the arrival of the reserve of the advance guard." And who has not seen the following in an outpost order: "In case the enemy attacks, the line of supports will be held." These are forms agreed upon—be they good or bad—because the problem insists upon a decision. But will this answer the purpose? Can such instructions fit the manifold possibilities? Does the advance-guard commander know beforehand that he will be able to come to the assistance of the outposts with his reserve? Does he know in advance what will be the division or corps commander's intentions? Should the section between Mahrung- and Narien-see be defended to the utmost even if the enemy already should have captured Eckersdorf? Or should Eckersdorf be defended if the enemy advances

*See par. 139, F. S. R.

in overwhelming numbers from Reussen towards Schwenkendorf? Naturally not. The advance-guard commander as well as the outpost commanders in case of a hostile attack will make their arrangements and issue orders in accordance with the requirements of the situation, and as would be their duty in an engagement. But none of them can order in advance what shall be done in an individual case, for none of them knows what the enemy will do, and as a rule none of them has seen the terrain in question. Orders for engagements issued in advance can only be disturbing elements and interfere with individual action. If we carefully go over the situation presented to the advance-guard and the outpost commanders on May 5th we must come to the conclusion that it will be best for them not to give their subordinates binding rules of action. Then vigorous opposition will everywhere be offered to the enemy, which will insure the main body ample time for preparation and ward off hostile skirmishers, but which need not be prolonged at a loss contrary to one's designs. The superior commanders are on the ground and will do their duty.

The outposts will perform their duty if they guard the main body against surprise. We can confidently intrust their commanders with the manner of doing this and where and how long they are to fight. It seems to me that here the excellent German regulations have become untrue to their own sound principles. Omitting the element of compulsion would not deprive any superior commander of the ability to give the outposts or parts of the same more definite instructions in particular cases.

The scarcity of cavalry gives a peculiar appearance to the outposts as a whole. In peace maneuvers the training of troops, as a rule, calls for an engagement every day. Therefore the opposing parties must be posted near each other. There is no room left between them for extended movements and enterprises by the cavalry. Possibly with the exception of the first

maneuver day, the cavalry remains as near the infantry as would happen in war only just before a battle. And, as only a few complete cavalry divisions can be formed annually, the infantry has a much larger force of cavalry attached to it than in time of war. It follows that outposts, too, receive an unusually large quota of cavalry, which in some instances produces an erroneous impression as to the part that will regularly be taken by cavalry in outpost duty. Until within the past few years this presentation of peace-time received official recognition, and to this day the old method has not entirely disappeared of having a long line of cavalry outposts in front of the infantry as a means of protection during the day, and withdrawing it at night. The erroneous impression that sufficient cavalry would be available for this duty has not yet been entirely removed; a duty which in time of war would use up the corps cavalry in a few days. But the conviction will gain ground that the protection of a force of all arms both by day and night is the business of the infantry.

In our example we even see how a large part of the corps cavalry is sent far to the front to assist the large bodies of cavalry, while only a minimum amount, not enough even to supply mounted orderlies for the outposts, remains with the infantry. This is not an exceptional case, for army headquarters always will endeavor to assemble the mass of the cavalry at the decisive point. Corps cavalry always will have to help on one wing of the army, and particularly directly in front of the army. This should not be overlooked in peace maneuvers. To prevent infantry becoming accustomed to situations not true to war conditions, the unavoidable excess of cavalry at maneuvers should be used to reinforce the large reconnoitering bodies and afford it the opportunity of performing outpost duty of independent cavalry on a remote flank where there is no infantry.

Infantry can easily do without the protection afforded by stationary cavalry. Even if this is lacking, the infantry sup-

ports may do their cooking undisturbed, because they are always ready for action.

Where formerly cavalry pickets and vedettes were posted, the infantry nevertheless had to be prepared for sudden attack because the scattered bodies of horsemen only too easily could be thrust aside or penetrated. Corps cavalry is much better employed if it devotes itself continuously to reconnaissance. We see from our example that, even shortly before a battle, it must not always look for its place in the line of infantry outposts.

On the evening of May 5th the three troops commanded by Major D—— presumably will be reunited at Brückendorf and spend the night there, while officer's patrols will remain in the vicinity of Pupkeim and Ballingen, and resume their reconnoitering before dawn. Major D—— is justified in deciding to remain in advance of the infantry outposts by reason of the knowledge he has obtained of hostile outposts, the duty to keep touch with them, the advanced position of the 1st Cavalry, and the protection afforded him by the Passarge at Brückendorf. Major D—— found out in the morning how difficult it was to overcome the obstacle presented by the Passarge with an enemy on the opposite bank. He will not voluntarily give up the bridges again. It is to be hoped that after learning of the engagement at Brückendorf, Troop E remembered to obtain a liberal supply of ammunition from the infantry ammunition-wagons; a few extra clips will be cheerfully carried by each trooper in his saddle-bags, notwithstanding the extra weight.*

Arrangements for quartering the cavalry could be made at Brückendorf in a similar manner to what was done at Scharnick and Lingnau. Protection can be more easily attained on account of the Passarge. A dismounted picket should be posted at the railway station on the right bank to act as a pro-

*German cavalry carry but 45 rounds per man.

tection to patrols going and messengers returning, as well as to the advance of the troops on May 6th. The planks of the foot-bridge at Alt Kockendorf will be removed and hidden on the left bank. An attempt will be made to restore telegraphic communication with Horn railway station. There will be no difficulty in obtaining supplies, although, of course, the troop wagons cannot be brought up.

The three attitudes in which the cavalry is shown with reference to the infantry in the night positions of May 5th–6th may be taken as characteristic ones. In the north, at the outer flank of the army, an independent body of cavalry is a day's march in advance and by its position and far-reaching reconnaissance protecting the main body of the nearest troops of the 1st Army Corps from surprise, so that the troops at Gr. Hermenau and Mohrungen will require nothing but exterior guards. Farther south, in front of the middle of the army corps, three troops of corps cavalry are holding a defile, but without making regular outposts unnecessary between Narien- and Mahrungsee. In the southern section the infantry must almost entirely depend on itself, and must supplement the reconnaissance and messenger service of the few remaining troopers by cyclists.

It certainly is instructive to pass from the details we have described to these characteristics of the situation as a whole. But we must remember that the peculiar nature of the groupings is the result of a natural course of events and the peculiarity of the terrain. They do not, for example, represent three forms of the service of security and information arbitrarily crowded by me into the narrow limits of an evening's doings within a restricted area. Any intelligent person will see that there are numerous other forms that would have been applicable, and that every case requires its own arrangements.

CONCLUSION.

The first section of Part II. was devoted to the arrangements of independent cavalry seeking to pass the night far in advance of the army and near the enemy. As there was a lack both of war experience and peace training to draw upon, tentative measures and careful deliberation had to be employed to arrive at a satisfactory conclusion. It is believed that considerable information can be drawn from this work; among other things, that, even where natural obstacles do not protect troops, there are many advantages in placing troops in quarters over having them in bivouacs. We further saw with what difficulties pickets must contend that keep their horses with them; and we saw the inadequate results and dangers of mounted patrolling by night. An examination of modern inventions intended to expedite the transmission of information and orders showed that we must not place our hopes too high, and that for the present the automobile and motor-cycle are the most promising auxiliaries.

In the second section we considered the arrangement of troops and the protection of the march of an army corps which had to look out for hostile cavalry on its front and flanks. Important questions relating to the distribution of troops and order of march were discussed, and great stress was laid on the importance of preventing hostile reconnaissance. The discussion of the depth of columns afforded an insight into the dependence of higher commanders on time and space and the obstacles placed in the way of their plans by the necessity of bringing up supplies.

The third section of Part II. dealt with the army corps' halt for the night and the posting of outposts of infantry and cavalry. The scarcity of cavalry was very noticeable both on the march and on outpost. At the same time we realized that service of security for large bodies of troops can be carried on

by the infantry, even if the latter has but a small number of troopers left at its disposal, and that this is no reason for keeping back the corps cavalry.

If we may hope that our mutual labor has improved our judgment and helped to clear up important questions in the military service; if we may assume that thereby a sound foundation has been laid for further study on the subjects of battles and operations, still our foremost aim would be to incite mental activity, develop ability, and strengthen the conviction that the true art of war is progressive nad must not be hampered by fetters.

Form of message blank and envelope used at the Army Service Schools, Fort Leavenworth, and proposed for the revision of F. S. R.

This blank has a margin on the left for binding. The back is ruled in squares and provided with scales for use in making simple sketches explanatory of the message.

It is issued by the Signal Corps in blocks of 40 with duplicating sheets.

U. S. ARMY FIELD MESSAGE	No.	Sent by	Time	Rec'd by	Time	Check
Communicated by Buzzer, 'Phone, Telegraph, Wireless, Lantern, Helio, Flag, Cyclist, Foot Messenger, Mounted Messenger. (Underscore means used)	[These spaces for Signal Operators only]					

[Name of sending detachment]

From .....

[Location of sending detachment]

At .....

Date.....Hour.....No.....

To .....

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Received.....

—5 ins.—

—8 ins.—

U. S. ARMY FIELD MESSAGE

TO..... No.....

(For Signal Operators only)

When Sent.....

Rate of Speed.....Name of Messenger.....

When and by Whom Rec'd.....

THIS ENVELOPE WILL BE RETURNED TO BEARER.

—3 ins.—

—5¼ ins.—

German Names and Abbreviations Found on the Maps, and English Equivalents.

GERMAN.	ENGLISH.
Allensteiner Buchwald	Allenstein beech woods
Alt	Old
Alte Schanze	Old intrenchment
B. (Berg)	Hill, mountain
Bge. (Berge)	Hills, mountains
Bhf. (Bahnhof)	Railway station
Brauerei	Brewery
Bruch	Marsh, moor
Bruecke	Bridge
Cap. (Capelle)	Chapel
Die	The
Dt. (Deutsche)	German
Ehem. (Ehemalig, Ehemalige, Ehemaliger)	Former
F. (Foersterei)	Forester's house
Fl. (Fluss)	Stream, river
Fliess	Small stream
Floss Gr. (Graben)	Timber runway
Forst	Forest (cared for)
Fuhrt	Ford
Grosse Bruch	Large marsh
Hasen B. (Berg)	Rabbit hill
Heide	Moor
H. P. (Halte Platz)	Stopping-place
H. St. (Halte Stelle)	Station (railway)
Kl. (Klein)	Small, lesser
Lust Insel	Pleasure island
M. (Muehle)	Mill
Muehlen T. (Teich)	Mill pond
Neu	New
Neue T. (Teich)	New pond
od. (oder)	Or
O. F (Ober Foersterei)	Senior forester's house
Pr. (Preusisch)	Prussian
R. G. (Ritter Gut)	Knight's manor
S. (See) } See }	Lake
Schweden Schanze	Swedish intrenchment
Steiniger Grund	Rocky ground
Stift	Religious institution
T. (Teich)	Pond
Thal	Valley
Tomlacker Wald	Tomlack woods
Unter	Lower
U. F. (Unter Foersterei)	Under-forester's house
Vorst	Forest (Old German, very seldom used)
W. (Wald)	Woods
Weichsel	(Meadows) Grass fields
Wiesen	Vistula
Zgl. (Ziegelei)	Brickyard
Zu	To, at

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